Coronavirus and Food Safety

In these unprecedented times, many of us have questions regarding Coronavirus and food. To be clear, as of the end of March, experts at the FDA said that, “currently there is no evidence of food or food packaging being associated with transmission of COVID-19. It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.”

The USDA website also states that they “are not aware of any reports at this time, of human illnesses that suggest COVID-19 can be transmitted by food or food packaging.” However, they go on to say that “it is always important to follow good hygiene practices when handling or preparing foods.” With that in mind, here’s a brief review of USDAs 4 steps to food safety.

1. Clean: Wash hands, utensils & surfaces often.

   Wash your hands the right way:
   - Use plain soap & water to scrub your entire hands, front & back for at least 20 seconds. Try humming the “Happy Birthday” song from beginning to end twice.
   - Rinse hands, then dry with a clean towel, both before and after meal prep, or anytime that germs can spread, like before and after shopping.

   Wash surfaces and utensils after each use:
   - Wash cutting boards, dishes, utensils, and countertops with hot, soapy water especially after they’ve held raw meat, poultry, seafood, or eggs.
   - Wash dish cloths often in the hot cycle.

   ReFresh Note: CDC and other public health experts have suggested that, during the crisis people refrain from bringing reusable bags to the grocery store. If using plastic store bags, either recycle them the next time you go shopping, or make sure they get reused and put in the trash.

   Wash fruits and vegetables, but not meat, poultry, or eggs:
   - Rinse fruits and vegetables under running water.
   - Scrub firm produce like melons or cucumbers with a clean produce brush.

   ReFresh Note: CDC and other public health experts have suggested that, during the crisis items like leafy greens aside, much produce can be washed in a bath of warm soapy water before being rinsed.

   Dry produce with a clean cloth towel.
   - Don’t wash meat, poultry, eggs or produce marked “pre-washed”.

2. Separate: Don’t Cross Contaminate

   Use separate cutting boards:
   - Use one for fresh produce and another for raw meat, poultry, or seafood. Use separate plates and utensils for cooked and raw foods.

   Keep certain types of food separate:
   - In the shopping cart, separate raw meat, poultry, seafood, and eggs from other foods and place in plastic bags if available. At check out, place raw meat etc in separate bags from other foods.
   - At home, place raw meat, poultry, and seafood in sterile containers or sealed plastic bags. Freeze if not planning to use within a few days.

   ReFresh Note: CDC and other public health experts have suggested that, during the crisis packaged food can be placed in sterile containers as well - tossing or recycling all packaging as soon as it comes in the door.

3. Cook to the Right Temperature

   Cook until internal temperature is high enough to kill germs:
   - Cook steaks, roasts, fish and fresh pork to an internal temp of 145°F and ground meat, poultry, precooked pork like ham, and all leftovers or casseroles to 165°F

   Keep food hot (140°F or above) after cooking:
   - Use a heat source like a warming tray, or slow cooker.
• Microwave food thoroughly (165°F or above)
• Read and follow directions to make sure food is thoroughly cooked.
• If the label says, “Let stand for x minutes after cooking,” follow directions - letting microwaved food sit for a few minutes enables colder areas to absorb heat from hotter areas.
• Stir food in the middle of heating unless package directions state otherwise

4. Chill: Refrigerate and Freeze Food Properly

**Refrigerate perishables within 2 hours:**
• Set fridge to 40°F or below and freezer to 0°F or below.
• Never leave perishables out for more than 2 hours. If exposed to temperatures above 90°F, refrigerate within 1 hour.
• Place leftovers in shallow containers and refrigerate promptly.
• Never thaw or marinate on the counter - put in the fridge.
• Freezing does NOT destroy harmful germs, but it does keep food safe until cooked.
• Throw food out before harmful bacteria grows.

With so many of us quarantined in place and looking for productive activities, this is a perfect opportunity to conduct an in-home food waste audit. EPAs Food: Too Good To Waste Implementation Guide and toolkit can be found online at [www.epa.gov/sites/production/files/2016-02/documents/implementation_guide_and_toolkit_ftgtw_2_1_2016_pubnumberadded508_alldocuments.pdf](http://www.epa.gov/sites/production/files/2016-02/documents/implementation_guide_and_toolkit_ftgtw_2_1_2016_pubnumberadded508_alldocuments.pdf) Whether or not you conduct the audit, the following is a recap of Food Waste Reduction Strategies from EPA:

**SMART SHOPPING: Shop with Meals in Mind**
• Plan meals for the week before shopping.
• Shop the kitchen first and note items already there.
• Buy What’s Needed – Make a shopping list based on remaining needs for meals eaten at home.
• Next to fresh items on the list, note the quantity needed or number of meals you’re buying for.
• Keep a running list of meals and their ingredients that your household already enjoys. That way, you can easily choose, shop for and prepare meals.
• Make a shopping list based on how many meals are eaten at home. Will you order take-out this week? How often?
• Remember that buying in bulk only saves money if you are able to use the food before it spoils.

**SMART STORAGE: Keep Fruits and Vegetables Fresh**
• Store produce for maximum freshness - know which belong inside and outside the fridge. They will taste better and last longer.

Inside the fridge:
• Apples, berries, and cherries
• Grapes, kiwi, lemons, and oranges
• Melons, nectarines, apricots, peaches, and plums (after ripening)
• Avocados, pears, tomatoes (after ripening)
• Almost all vegetables and herbs

Outside the fridge:
• Bananas, mangos, papayas, and pineapples: (in a cool place)
• Potatoes, onions: (in a cool, dark place)
• Basil and winter squashes: (once cut, store squashes in fridge)

Other storage tips:
• If you like your fruit at room temperature, take only a day’s worth out at a time.
• Many fruits give off natural gases that hasten the spoilage of other produce. Store bananas, apples, and tomatoes by themselves and store fruits and vegetables in different bins.
• Consider storage bags and containers designed to help extend the life of your produce.
• To prevent mold, wash berries just before eating.

**SMART PREP: Prep now, eat later**
• When you get home from the store, take the time to wash, dry, chop, dice, slice, and place your fresh food items in clear storage containers for snacks and easy cooking.
• Befriend your freezer and visit it often. Freeze food such as bread, sliced fruit, or meat that you know you won’t be able to eat in time.
• Cut your time in the kitchen by preparing and freezing meals ahead of time.
• Prepare and cook perishable items, then freeze them for use throughout the month. For example, bake and freeze chicken breasts or fry and freeze taco meat.

**SMART SAVING: Eat what you buy**
• Be mindful of leftovers and old ingredients that need using up.
• Designate an area in the fridge for food that should be eaten soon to prevent spoiling and post an EAT FIRST prompt as a visual reminder.
**ZUCCHINI BROCHETTES**

**LEFTOVERS THAT STEAL THE SHOW**
Slide those leftover ingredients on a skewer and chow down. Want to get really crafty? Add zucchini petals between chunks of sausage and zucchini for a pop of flavor and flare.

**SERVINGS:** 4-6  
**USES UP:** Zucchini Ends

**INGREDIENTS:**

| 3-4 Zucchini Cores, leftover from Julienned Zucchini Noodles | 4 oz Kielbasa or other cooked Sausage roughly 1 inch in diameter, cut into equal discs |
| 8 pieces Zucchini Ends | 1 Cup Rice Wine Vinegar |
| 1/4 Cup Sugar | 2 Tbsp Salt |
| Rendered Bacon Fat | Optional: 4 Zucchini Blossoms if Available |

**DIRECTIONS:**

In a small pot, heat the vinegar, sugar & salt to make a brine. Place the zucchini cores in a small container large enough to fit them in a single layer. Pour the warm brine over the cores & allow to cool completely. Cover & place in fridge until needed.

Heat a cast iron grill pan over high heat. Toss zucchini ends in rendered bacon fat, & grill, cut-side down, for 2 minutes. Remove from the grill & set aside.

Add the 8 slices of sausage to the grill pan & grill for 1 minute per side. Remove from grill & set aside. Cut 8 slices of brined zucchini core, the same thickness as the kielbasa.

Assemble the 4 brochettes by skewering a zucchini end, a slice of sausage & a piece of brined core on a small skewer. Repeat so each brochette has 2 pieces of each component. If zucchini blossoms are available, add the petals to the brochette between some of the chunks of sausage and zucchini.

Brush brochette with rendered bacon fat & heat in a 350°F oven for 5 minutes. Serve warm with a squeeze of lemon juice.

**CREDIT:** Dan Barber, chef & co-owner Blue Hill and Blue Hill at Stone Barns bluehillfarm.com
QUICK TRICKS
Ingredient Substitutes
Alice Henneman, MS, RDN, Extension Educator

Ever have a missing ingredient ruin a recipe or require an extra trip to the store? Try these food substitutes - it may differ slightly, but will still be acceptable in terms of flavor, texture & appearance.

<table>
<thead>
<tr>
<th>Product</th>
<th>Substitute</th>
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</thead>
<tbody>
<tr>
<td>1 Cup Chili Sauce</td>
<td>1 Cup Tomato Sauce, 1/4 cup Brown Sugar, 2 Tbsp Vinegar, 1/4 tsp Cinnamon, a dash of Ground Cloves &amp; a dash of Allspice</td>
</tr>
<tr>
<td>1 oz Unsweetened Chocolate</td>
<td>3 Tbsp Cocoa &amp; 1 Tbsp Butter, Margarine or Vegetable Oil</td>
</tr>
<tr>
<td>1 Tbsp Cornstarch</td>
<td>2 Tbsp Flour</td>
</tr>
<tr>
<td>1 Whole Egg</td>
<td>1/4 Cup Egg Substitute OR 2 Tbsp Mayonnaise in Cake Batter OR 1/2 tsp Baking Powder, 1 Tbsp Vinegar &amp; 1 Tbsp liquid (baking use only)</td>
</tr>
<tr>
<td>1 Cup All-Purpose White Flour</td>
<td>1/2 Cup Whole Wheat Flour &amp; 1/2 Cup All-Purpose Flour</td>
</tr>
<tr>
<td>1 Cup Cake Flour</td>
<td>1 Cup minus 2 Tbsp All-Purpose Flour</td>
</tr>
<tr>
<td>1 Cup Self Rising Flour</td>
<td>1 Cup minus 2 Tbsp All-Purpose Flour, plus 1 1/2 tsp Baking Powder &amp; 1/2 tsp Salt</td>
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For more ideas on how to makeover your leftovers, go to: food.unl.edu/cook-it-quick-documents/makeover-your-leftovers.pdf

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NEBRASKA EXTENSION

20% MEAT FOOD LOSSES
Of the 263 million tonnes of meat produced globally, over 20% is lost or wasted.

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