They’re Coming!
By Emily Boudreau

They’re out there. Millions of invaders just waiting, waiting for that perfect opportunity to strike. The perfect time to infect not only you, but your loved ones as well and it is your job to ensure this does not happen. It could be a similar plot for a sci-fi novel or the perfect setting to a horror film. But where is this battleground located?

Your kitchen. But have no fear! With a few simple precautions you can keep yourself and anyone else happy and healthy with each meal you make.

Food borne illnesses are not rare occurrences. In the United States alone, food borne illnesses affect 76 million individuals, resulting in 325,000 hospitalizations and 5,000 deaths. Many of these cases are due to unsanitary food preparation conditions in the home, something which can be easily avoided if you know what to do.

Where Do I Start?

You have purchased your food, now what? The 2010 Dietary Guidelines split up food safety principles into four easy categories:

1. Clean
2. Separate
3. Cook
4. Chill

But what do these mean?

Clean!

If we take a closer look at the first category, we find that the old saying “Cleanliness is next to godliness” is not too far off base. When preparing a meal it is important to wash:

Meet Salmonella. Cute isn’t it? Just the kind of bacteria I know I want crawling all over any of my foods that have touched raw animal products like eggs, poultry and meat. There is nothing I love more than abdominal cramping, fevers, headaches, and diarrhea for 4 to 7 days with the possibility of hospitalization. This adorable little guy infects more than 1.4 million people every year, causing more than 400 deaths. If you’re not like me, avoid Salmonella and cook your food*!
• Your hands
• Any utensils you plan to use
• Cutting boards (especially in between cutting different types of foods, such as raw meats or vegetables)
• Countertops
• Reusable shopping bags

By doing this, you greatly reduce the risk of cross contamination of various germs from not only animal products, but also raw fruits and vegetables and even canned goods (it is important to wash the tops of cans with hot, soapy water before opening). You must wash your hands with warm, soapy water for at least 20 seconds. When is the best time to wash your hands?
The list is a bit longer than you would expect:
• BEFORE you begin any food preparation
• After handling any raw food item (especially meats)
• After going to the bathroom
• After handling a pet
• After touching a person who may be ill

When washing fresh fruits and vegetables it is best to wash them under running water without soap just before eating, cutting, or cooking. It is important that you dry the produce after washing it to eliminate any remaining bacteria.

Separate!
This category involves separating foods which may be considered ready to eat and those which are raw. While preparing your foods, consider getting a different cutting board to use for raw meats, and a separate one for preparing raw vegetables. It is also important to always use a clean plate when serving cooked food, and to never use the same plate that held the raw food if it has not yet been washed.

Cook!
The cooking category is perhaps the most important. If the correct temperatures are reached for the proper length of time for all meats, poultry, seafood and eggs, nearly all germs will be
killed making the food safe for consumption. Many people believe they can tell when a food is done cooking based solely its appearance, but this is not the case.

Did You Know?

The USDA recommends that you do NOT rinse raw poultry, meat, or seafood before cooking it. By rinsing off the germs on the surface of the meats, you have rinsed them right into your sink where they happily survive and colonize without an issue. However, if left on the raw meat those germs would be killed off while cooking if the correct temperatures are reached.

<table>
<thead>
<tr>
<th>Type of Food</th>
<th>Internal Temperature</th>
<th>Additional Notes</th>
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<tbody>
<tr>
<td>Seafood</td>
<td>145ºF</td>
<td>Meat is opaque and flakey. Shellfish such as mussels and clams should be cooked until their shells open, any that don’t open should be discarded.</td>
</tr>
<tr>
<td>Beef, Veal, Lamb, Pork</td>
<td>160ºF</td>
<td>Make sure pork is not still pink in the center!</td>
</tr>
<tr>
<td>Poultry</td>
<td>165ºF</td>
<td>The inside of the meat should not be pink. When pressed, the juices should be clear.</td>
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<tr>
<td>Eggs (Frying)</td>
<td></td>
<td>Cook 2 to 3 minutes per side White and yolk should be firm. Yes, that means sunny-side up is not recommended!</td>
</tr>
<tr>
<td>Eggs (Boiling)</td>
<td></td>
<td>Boil for at least 7 minutes Firm yolk and white. “Soft” boil is not advised.</td>
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</tbody>
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Any left overs | 165°F | Safer to heat in an oven, not microwave.

Left over Gravy and Sauces | Boil | Reheat on a stove until it bubbles.

Microwave cooking is particularly dangerous. Although you are not using an oven or stove, the same internal temperatures must be reached. The big problem with microwaves is that they do not heat foods evenly. Often, some sections of the food get very hot, while others remain cool enough for certain bacteria to survive causing obvious problems.

Chill!

When most people finish eating a meal they find that they still have some left over. Just because proper care was taken while preparing this food, it does not mean that it is now safe to consume whenever you want it. It is important to refrigerate food within two hours of it being cooked, and within one hour if the environment where the food will be served is warmer than 90°F. Make sure you keep your refrigerator at a temperature no warmer than 40°F and your freezer at temperatures no warmer than 0°F.

If these steps are followed, you should be able to prepare delicious and safe meals each and every time you enter the kitchen!

Sources