



## *The Anatomy of C-LES*

Your host through this cookbook has been C-LES, an imaginary germ that has been created from five bacteria sometimes found in food. These include *Campylobacter*, *Clostridium botulinum*, *Listeria*, *Escherichia coli*, *Salmonella*, and *Staphylococcus*. The above mentioned bacteria are guilty of causing a large number of foodborne illness. Below you will find some important information about each of the bacteria that make up C-LES.



**I promise.  
I am not that bad of a guy!**

### *Campylobacter*

**Signs and Symptoms** - Diarrhea, cramps, fever, and vomiting; diarrhea may be bloody.

**Duration of Illness** - 2 to 10 days

**Associated Foods** - Raw and undercooked poultry, unpasteurized milk, contaminated water.

### *Clostridium botulinum*

**Signs and Symptoms** - Vomiting, diarrhea, blurred vision, double vision, difficulty swallowing, and muscle weakness.

**Duration of Illness** - Variable (from days to months)

**Associated Foods** - Home canned foods with a low acid content, improperly canned commercial foods, home-canned or fermented fish, herb-infused oils, baked potatoes in aluminum foil, cheese sauce, bottled garlic, foods held warm for extended periods of time (eg. in a warm oven).





### *Listeria monocytogenes*

**Signs and Symptoms** - Fever, muscle aches, and nausea or diarrhea. Older adults or people with weakened immune symptoms may have bacteremia (bacteria in blood) or meningitis.

**Duration of Illness** - Variable (from days to months)

**Associated Foods** - Fresh soft cheeses, unpasteurized or inadequately pasteurized milk, deli meats, hot dogs.

### *Escherichia coli*

**Signs and Symptoms** - Severe diarrhea that is often bloody, abdominal pain, and vomiting. Usually little or no fever is present.

**Duration of illness** - 5 to 10 days

**Associated Foods** - Undercooked beef, unpasteurized milk and juice, raw fruits and vegetables (eg. sprouts), salami, salad dressing, and contaminated water.

### *Salmonella*

**Signs and Symptoms** - Diarrhea, fever, abdominal cramps, vomiting.

**Duration of Illness** - 4 to 7 days

**Associated Foods** - Contaminated eggs, poultry, unpasteurized milk or juice, cheese, contaminated raw fruits and vegetables (eg. sprouts and melons).

### *Staphylococcus*

**Signs and Symptoms** - Sudden onset of severe nausea and vomiting, and abdominal cramps. Diarrhea and fever may be present.

**Duration of Illness** - 24 to 48 hours

**Associated Foods** - Unrefrigerated or improperly refrigerated meats, potato and egg salads, and cream pastries.

