

## **What is Food Poisoning?**

Food poisoning is a major problem in today's world. Food poisoning occurs when people consume contaminated food. Contamination is when bacteria, viruses, or chemicals infect food. CDC statistics in the past estimated 76 million illnesses, resulting 325 thousand hospitalizations and 5,000 deaths. But numbers are starting to rise. According to Associated Press, close to 87 million cases broke out in February 2009 due to the salmonella peanut break out. It caused 371 thousand hospitalizations and 5,700 deaths. Nowadays, food poisoning strikes 1 in 4 Americans every year. Most of the time people don't pay attention to what they're eating and what's in it. Food is tempting but dangerous. Bacteria contaminated food can seriously infect people.

### **Our Problem: Food Poisoning by Bleach.**

Bleach is a very strong and toxic substance commonly used in kitchen area. It is perceived as a helpful cleaning substance. Ingesting a high concentration of chlorine

can result in damage to the gastrointestinal tract or death. Sodium hypochlorite is the chemical commonly found in bleach. Breathing sodium hypochlorite fumes, especially if the product is mixed with ammonia, or swallowing it may cause poisoning.

### **And How It Happens:**

Many people use bleach to clean dishes, cutting boards and kitchen areas. Unfortunately, water doesn't rinse the residue off. Bleach easily contaminates food on contact and ingests into your system.

### **Symptoms:**

A few symptoms of bleach are: nervous system and gastric damages, linked to cancer, internal bleeding, stomach aches, vomiting, damages to your esophagus, respiratory issues, skin burns, exacerbate asthma, and cause headaches.

### **Bleach Food Poisoning**

### **Statistics:**

- Over 20,000 children are poisoned from bleach each year. According to [www.kiddopotamus.com](http://www.kiddopotamus.com)

- 14,400 children, under age 6, were poisoned in 2007 according to AAPCC (American Association of Poison Control Centers)
- The most affected are children under 5 especially during their years as aged 1 or 2.
- Each year, over 240,000 children are taken to the emergency Room for household chemical poisoning.
- Between 12 most contaminated foods, 6 of them are fruits, they are apples, strawberries, peaches, domesticated nectarines, imported grapes and domestic blueberries.

### **Alternatives to Bleach:**

There are many alternatives to bleach. The common ones are Vinegar, Baking soda and Lemon juice. Vinegar kills 99 percent of bacteria, 82 percent of mold, and 80 percent of germs (viruses).

Vinegar is acidic so dilute it properly before use.

Baking soda also acts as a good deodorizer.

Lemon juice dissolves soap scum and hard water deposits on pots and pans.

*Other usable ingredients to create bleach alternatives are:*

- *Hydrogen peroxide*
- *Borax*
- *Washing soda*
- *Sodium hydrosulfite (salt & water)*
- *Per-carbonate (salt, limestone and oxygenated water)*

Hydrogen peroxide and vinegar, or salt and vinegar will cut down on some level of food borne bacteria.

### **Awareness:**

Not many people are aware of bleach and its many harms. The number one issue for the Partnership for Food Safety Education is educating the public about safe food handling practices. Foodborne illness affects include infants, children, pregnant women, and the elderly. Consumers can reduce their risk of contracting a foodborne illness by practicing clean, separate, cook, and chill during food preparation and storage.

### **Our Solution:**

Our solution is to use alternatives that will do the job and not harm anyone. Some alternatives we thought of were vinegar, lemon juice, baking soda, or our best, the MEAPtastic De-Germinator.

### **Tips to be healthy and bacteria free :**

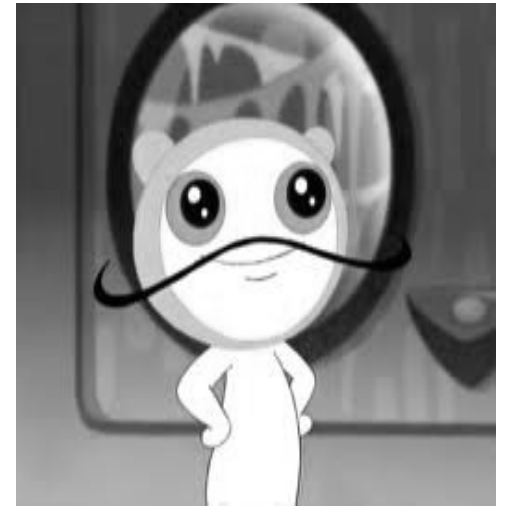
Instead of using a toxic disinfectant, use a bleach alternative to disinfect your home and to keep your kids safe.

Use wood or a nonporous surface cutting board such as plastic, marble, glass, or pyroceramic. Nonporous surfaces are easier to clean than wood. Use one cutting board for fresh produce and bread and a separate one for raw meat, poultry, and seafood. Replace worn cutting boards.

Researchers have found that wood cutting boards are less likely to harbor bacteria than plastic, and if you're still worried about lingering germs, microwave it.

Always keep a clean spray bottle filled with 5% vinegar in your kitchen. Wash cutting boards with hot, soapy water, rinse with clear water and air dry or pat dry with clean paper towels. Then spray the solution and leave it for 30 minutes and the bacteria is gone.

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LEGO LEAGUE:  
FOOD FACTOR  
CHALLENGE**



**The MEAPS!**

**Annie, Ashna, Esha,  
Kanvi, Meghal, and  
Pranavi.**