

FOOD SCIENCE & HYGIENE

- Food born illness
 - What is it?
 - What causes it?
 - How can we prevent it?

- LET'S SEE...

Dangers of Foodborne Illness

- A foodborne illness is a disease carried or transmitted to people by food
- Foodborn illness outbreak is defined as:
 - “2 or more people experience the same illness after eating the same food”
- Most common causes are failure to :
 - Cook or Cool, or Hold at the proper temp

Providing Safe Food

Increased foodborne outbreaks due to:

- The emergence of new foodborne pathogens (Microorganisms)
- Imported Foods
- Composition of food
- Take out meals
- Changing demographics (Large Numbers)
- Lack of Food Safety Management Systems in small operations

Cost of Foodborne Illness

The cost to a food establishment can be very large and can include the following:

- A Lawyer
- Court fees
- Testing of food samples
- Bad publicity... loss of customers & sales
- Prestige & Reputation

The benefits of a FSMS

A Food Safety Management System ensures that you can :

- Offer a defense against a Lawsuit
- Protect your Customers & Staff
- Higher profits & better service
- Better food quality
- Lower food costs due to less waste

Preventing Foodborne Illness

In order to prevent foodborne illness you should be aware of the 3 ways in which food could effect people

1. ***Biological...*** Bacteria, Viruses, Parasites
2. ***Chemical...*** Cleaning products, polishes
3. ***Physical...*** Pieces of debris

Training Employees in Food Safety

A manager's responsibility is to ensure that the Food Safety Principles are practiced by everyone.

All Employees must be properly trained :

- Programs for both new and current employees
- Ongoing food safety training for everyone
- Appropriate training materials
- Records documenting employees training

Food Safety Management System

A (FSMS) will help to prevent foodborne illness by controlling hazards throughout the flow of food, and should incorporate the **Hazard Analysis Critical Control Points** (HACCP) principles.

FLOW OF FOOD

Purchasing, Receiving, Storing, Preparing, Cooking, Holding, Cooling, Reheating, Serving.

People at high risk

The demographics of the population in developed countries show an increase in the percentage of people at high risk and they include :

- *Infants and preschool-age children*
- *Pregnant women*
- *Elderly & People taking medication*
- *People with terminal diseases (cancer, HIV)*

Food most likely to become unsafe

Any food can become contaminated, however there are some foods that are classified as Potentially Hazardous Foods (PHF) and they are:

- Dairy Products.....Milk products, Eggs, etc
- Meat, Poultry, Fish, Shellfish.
- Soy-protein food, Cooked potatoes, Vegetables
- Unwashed raw foods, Fruits etc

Exceptions

Some exceptions to Potentially Hazardous foods are:

- Air-dried foods
- Low water
- Pickled Foods
- Un-opened containers... cartons, tins, etc
(Care must be taken once opened)

How food becomes unsafe

Common factors that are responsible for foodborne illness outbreaks are :

- Purchasing food from unsafe sources
- Failing to cook food adequately
- Holding food at improper temperatures
- Using contaminated equipment
- Poor personal hygiene

Do your research...

Find an article in a magazine, newspaper, or the internet, that talks about a case of food poisoning in your country

Create a summary of that article including:

1. What, when & where it happened
2. What was the cause
3. How many people got ill
4. What was the result of the outbreak
5. What happened to the establishment