

Food Poisoning

IR 144

***Koishibayev
Amirkhan***

Did you know? According to the Center for Disease Control:

- **76 million** become ill due to food / year
- **325,000** hospitalized
5000 die / year
- **> 250** known
foodborne diseases



Stomach Pain

Diarrhea

Vomiting

Not the flu!?



**These are symptoms of a
FOODBORNE ILLNESS**

Food Poisoning and Foodborne Illness

Can be caused by eating food contaminated with:

- ***BACTERIA***
- ***VIRUS***
- ***TOXINS***
- ***CHEMICALS***

BACTERIA

**The Most Common
Foodborne
Bacterial Illnesses are
Caused by:**

- × E-coli 0157:H7**
- × Campylobacter**
- × Salmonella**

E-coli 0157:h7



- ✓ Lives in cattle & other similar animals.
- ✓ Found in raw meat, non-pasteurized milk, apple cider, sprouts.

E-coli 0157:h7

- **Causes severe bloody diarrhea & cramps.**
- **Causes hemolytic uremic syndrome (HUS).**
 - **Kidneys fail**
 - **Red blood cells are destroyed**
- **Onset of illness 2-5 days.**
- **Lasts 5-10 days.**

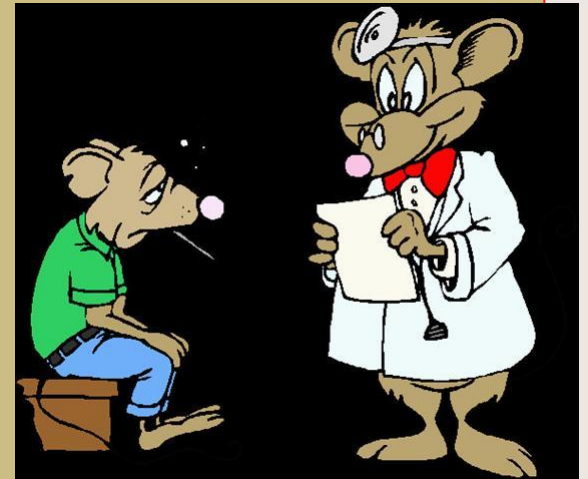
Campylobacter

Found in the intestinal tract of birds, sheep, cattle and on the surface of raw poultry.



Campylobacter

- Causes abdominal cramps, diarrhea and fever
- Onset is 2-5 days
- Lasts 7-10 days



Salmonella

Found in the **intestines** of birds, reptiles, & mammals.



Salmonella

- Causes fever, diarrhea & abdominal cramps.
- Can cause severe dehydration in infants and elderly.
- Onset is 6 hours - 2 days
- Lasts 1- 3 days.

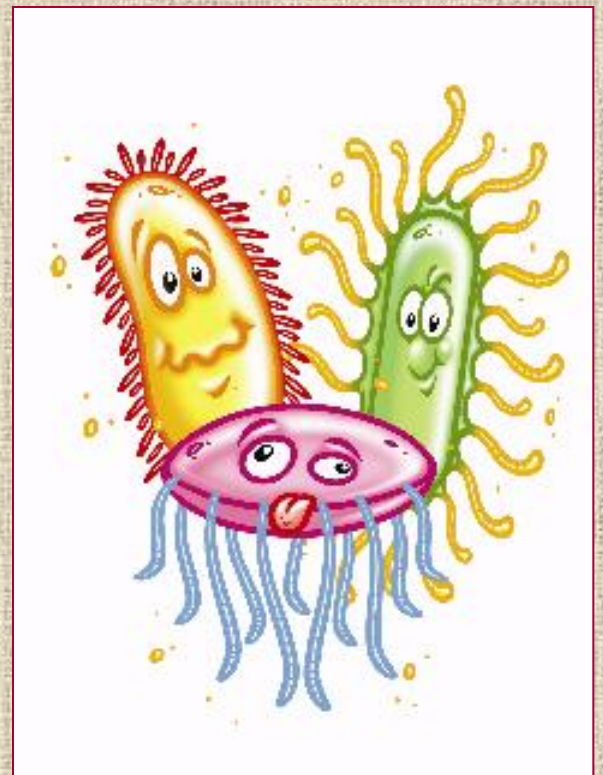
BIOLOGICAL TOXINS



Biological Toxins

Biological Toxins are produced by some pathogens found in food contamination.

They could also come from a plant or animal.

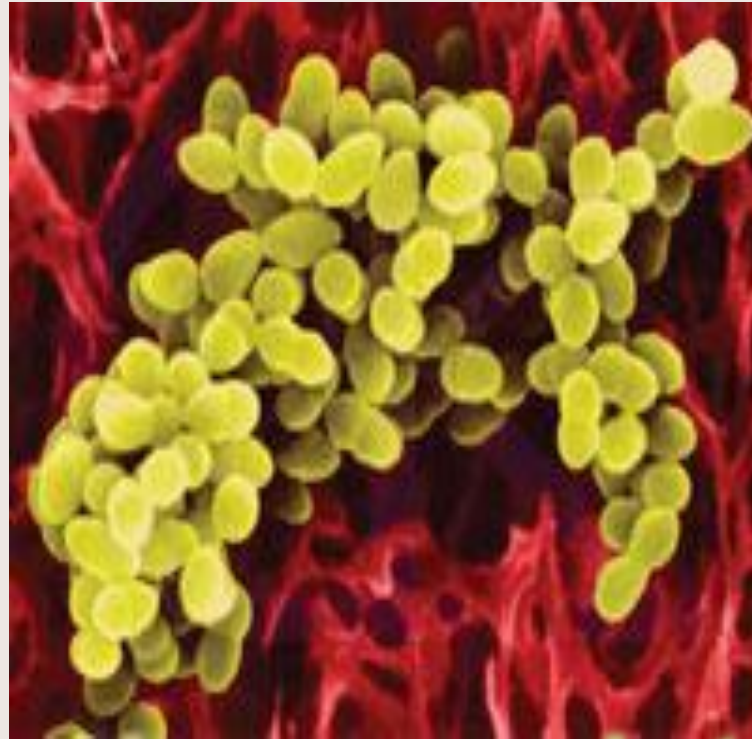


Bacterial Toxins

Some bacteria produce
poisons or toxins that cause:

FOODBORNE ILLNESS
(sometimes intentional)

Staphylococcus aureus



Commonly associated with
food service.

Staphylococcus Aureus

- If **toxin** - onset of illness is as quickly as **30 minutes**
- If **infectious** - onset can take **6 hours** or longer to appear.

Staphylococcus Aureus

produces a toxin that causes

serious vomiting and

stomach cramps.

Clostridium Botulinum

- **Toxin producing bacteria**
- **Causes botulism**
- **Symptoms are nerve related and can cause muscle paralysis**
- **Symptoms typically occur**
 - **8 to 36 hours after**
 - **or as late as 10 days**
- **Lasts several days to 1year**



NOROVIRUS

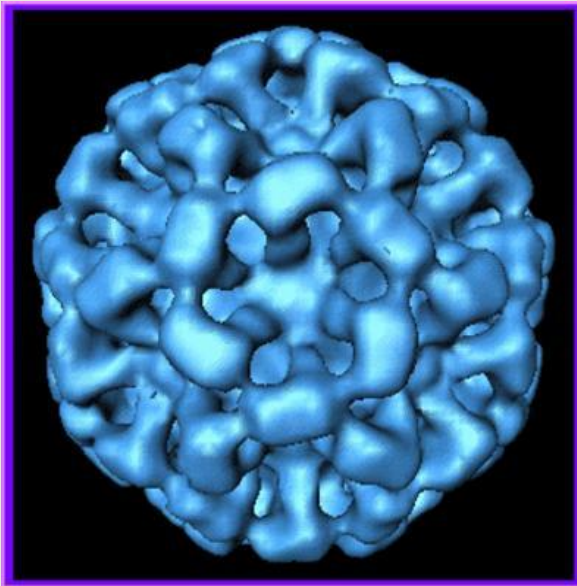
Norovirus

- The cause of **HALF** of all foodborne illness.
- Spread by
 - hand contact with food
 - food placed on a surface that is contaminated by the virus
 - or when virus is airborne.

Cold foods such as sandwiches & salads are often associated with Norovirus.



Norovirus



- Starts suddenly.
- Causes diarrhea, vomiting, abdominal cramps, headache, low-grade fever, chills & muscle aches.
- Often called the flu.
- Symptoms begin **12 to 48 hours** after ingestion of the virus.
- Recovery in **2-3 days** but may remain ill for up to **2 weeks**.

Another Foodborne Illness Virus

Hepatitis A

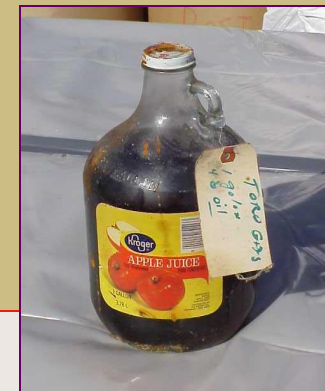
- Possible sources include by shellfish, salads, deli meats fruits, milk and milk products
- Symptoms include sudden onset of fever, general discomfort, fatigue, headache, nausea, loss of appetite, vomiting, abdominal pain & jaundice after several days.
- Lasts 1 to 2 weeks (severe cases up to several months).

CHEMICAL POISONING



CHEMICAL POISONING

- Careless or improper storage of chemicals
- Improper use of chemicals
- Improper labeling
- Sometimes intentional addition of poison



CHEMICAL POISONING

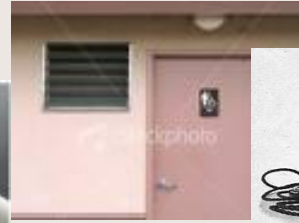
✘ Always store cleaners and chemicals below your food or food surfaces.



✘ Choose pesticides that are approved for use in the kitchen.

Protecting Yourself!





WASH YOUR HANDS



WASH YOUR HANDS OFTEN

Especially:

- **When preparing food.**
- **After using the bathroom.**
- **Avoid direct contact with public restroom doorknobs. (use paper towel to open door)**



WHEN WASHING YOUR HANDS

- **Use warm, soapy running water.**
- **Rub your hands thoroughly, scrubbing between fingers, and nails for:**



10-15 SECONDS.

Safe Preparation of Fruits & Vegetables



*Clean any items that
come into contact with fresh foods:*

- ✘ knives**
- ✘ cutting boards**
- ✘ hands**

Fruits & Vegetables

Do's & Don'ts

- Do wash your hands with soap and water before preparing food.
 - Do **rinse** fresh fruits & vegetables **with cold water**.
 - Do **refrigerate** at a temperature of 40° F or less.
 - Do **throw away** items that have come into contact with **raw meat or chemicals**.
- Do not prepare food for others if you yourself have **diarrhea**.
 - Do not use **bleach or soap** on fruits & vegetables.
 - Do NOT eat fresh cut items left **un-refrigerated** for > 2 hours.
 - Do not eat **bruised or damaged** fruits & vegetables.

Safe Preparation of Raw Meats

*A few simple precautions can reduce
the risk of foodborne diseases:*

- **COOK**
- **SEPARATE**
- **CHILL**
- **REPORT**

It's Getting Hot in here....

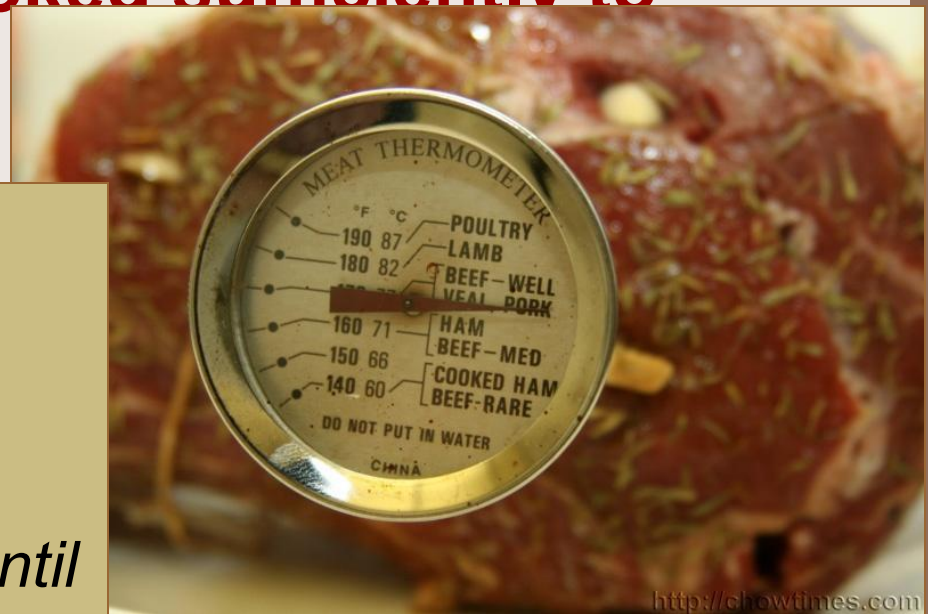
COOK:

- Meat, poultry, and eggs thoroughly.
- Use a thermometer to measure the internal temperature of meat to be sure that it is cooked sufficiently to kill bacteria.

For example:

Ground beef should be cooked to an internal temperature of 160° F.

Eggs should be cooked until the yolk is firm.



SEPARATE:

Don't cross-contaminate one food with another.



Avoid cross-contaminating foods by washing hands, utensils, and cutting boards after they have been in contact with raw meat or poultry.

Put cooked meat on a clean platter rather than back on one that held the raw meat.

CHILL OUT.....

Refrigerate leftovers promptly:

Bacteria grows quickly at room temperature, so refrigerate leftover foods within 2 hours.



Food will cool more quickly if divided into several shallow containers for refrigeration.

**If in doubt as
to the safety
of your food,**



THROW IT OUT!!



I'm Telling....

REPORT:



**Foodborne illnesses to your
LOCAL HEALTH DEPARTMENT.**



Your local health department
works hard to track down the
causes of the foodborne illness.

Prevent Food Poisoning

The Bottom Line

- Keep Hot Food Hot
- Cold Food Cold
- Keep Everything Clean
- Especially: *Wash Your Hands*
- Don't go to work sick.

What you can't see can harm you

Assemble a Team Everyone Has a Role in the Safety of Food



MADE BY: Koishibayev Amirkhan