

Bacteria #3 "Bad bacteria"

Necrotizing Fasciitis

Better known as the Flesh eating bacteria

No good treatment options

- cut out infected area & surrounding areas

★ First line of Defense **WASH Your hands**

WASH produce

Wash the tools

COOK Food properly - Buy a meat thermometer

4-28-14

Bacteria Pt 2

Bad Bacteria

- Pathogen: something that causes a disease

Must do 2 things to make you sick

1. invade, attach, multiply
2. Produce toxins to interfere with normal host processes

Example 1

TSS

STDs

Meningitis

Food Poisoning

Botulism

E. coli

Salmonella

3 things

1. How did it become contaminated
 - Modern Food processing
2. Rapid Replication
 - improper refrigeration/handling
3. No Preventative Actions
 - no sterilization

Most bacteria multiply rapidly between 45-130 degrees F

Food Poisoning

1/4 US citizens 76 million per year

325,000 hospitalization in 840

5000 deaths a year 1/55000

One quarter of all hospitalization happen on 1 day of the year

* Grandma is trying to kill you

Some plasmids code for antibiotic

collect several - becomes immune to multiple antibiotics

Cannot become immune to alcohol or regular soap

Staph causes 20,000 deaths & drug resistant

MRSA's - 16x as risky

4-23-14 Bacteria

Photoessay

- they are prokaryotic
- dominant life form
- 10 billion in mouth
- 25% of body weight.

They Are Successful Why?

- because of time
- multiply quickly
- Conjugation: Two bacteria meet and swap plasmids (DNA particles)

Many bacteria are beneficial

- Oil eating bacteria (clean up oil spills)
- Bacillus thuringiensis or BT - produces chemicals that causes crystals in worms and caterpillars, No ~~effect~~ effect on Humans!
- BT is genetically placed in plant seeds so people don't have to spray it on every plant.

Fermentation

- Some by yeast (beer) totally different
- Fermentation by Bacteria causes Sour-Pickles & such
Vinegar

Bacteria do what they are told

- Medicines - insulin
- enzymes
- Bioengineering