



Health & Safety

Req #1

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"Cooking is all about people. Food is maybe the only universal thing that really has the power to bring everyone together. No matter what culture, everywhere around the world, people eat together." -- Guy Fieri

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What could possibly go wrong?

- Think about **how** you cook
 - **Prevent/** mitigate/ respond
 - Anticipate risks
 - Attention to detail
 - "Be Prepared"
- 1. Burns
- 2. Scalds
- 3. Sharps (anyone watch the elective?)
- 4. Choking
- 5. Allergies
 - Kids: peanuts, milk, soya, tree nuts, eggs, wheat
 - Adults: citrus, nuts, fish, peanuts, shellfish, wheat



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Now That It Happened?

- First Aid for injuries
 - Prevent/ **mitigate/** respond
- Burns & Scalds
 - Cool, Clean & Cover
 - Leave blisters be
- Sharps
 - Stop bleeding
 - Clean wound
- Choking
 - Heimlich maneuver
- Allergies
 - Signs & Symptoms
 - Rx



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Good Cooking Habits

Wash your hands, utensils, surfaces

- Be ready *before* you begin
- Minimizes cross-contamination
- Prepare food from **lowest** → **highest** risk



CLEAN AS YOU GO!

- Keep work space uncluttered
- Safer and more controlled
- Cooking experience more organized
- Clean-up easier

How are good cooking habits affected by being in the field?



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Food Preparation

- "Food Poisoning" Bad
 - Affects everyone
 - Should be *mostly* preventable
 - Be aware of the potential contamination sources
 - Storage
 - Processing/ Preparation
 - Packaging



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Food Preparation



"The Jungle", Upton Sinclair, exposed Chicago meatpacking industry's lax standards and unsanitary conditions 1906
Meat Inspection Act (both 1906 Congressional legislation)
Pure Food and Drug Act, developed standards for proper labeling, regulated interstate commerce, precursor to the FDA

- **Storage**
 - Proper cold Temp
 - *Minimize pathogen growth*
 - Refrigerate leftovers
 - Freeze unused food
- **Processing / Preparation**
 - Proper cook Temp / Time
 - *Kill pathogens / bacteria*
- **Packaging**
 - Clean containers / conditions

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"Top Grubmaster Challenge"

1. Good cooking habits...

- a) Only matter when cooking away from your own kitchen
- b) Keep the cooking area safer, make you more organized, and make clean-up easier
- c) Only matter if someone is watching

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“Top Grubmaster Challenge”

2. Which is a “safer” food?

- a) A store bought container with a broken safety seal.
- b) Really tasty leftovers inside a sealed container, but left out overnight on the countertop.
- c) A unopened metal can of soup with a dented side and partially torn label.

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“Top Grubmaster Challenge”

3. Washing hands...

- a) Makes the risk of food contamination less
- b) Is unnecessary if all the food is prepackaged
- c) Need only be done at the start of cooking a meal

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"Meat" the illnesses

- Too many infectious diseases to individually list
 - Bacterial
 - Viral
 - Protozoal
- Common features:
 - Poor sanitary conditions
 - Cross contamination
 - Fecal – Oral transmission
 - Mostly supportive care



"The Scream", Edvard Munch 1893

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E. coli, Salmonella & Campylobacter Bacterial BFF's?

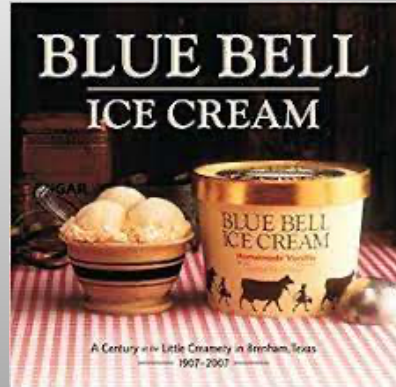
- Enteric bacteria
 - Normal flora
 - Subspecies pathologic
 - *E. coli* & *Campy*' — toxins
- Sxs
 - Stomach cramps, N/V/D
 - Renal failure/death
 - "Dysentery" bloody diarrhea
- Prevention/ Risks
 - Unwashed fruit/veggies
 - Undercooked food
 - Greatest risk
 - Immune Compromised & Elderly
- Treatment
 - Self-limiting, supportive care
 - Abx systemic disease
 - No vaccines



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Listeria monocytogenes

- Bacterium
 - Ubiquitous in environment
- Sxs
 - N/V/D, fever & "flu"
 - Meningitis, septicemia
- Prevention/ Risks
 - Safe handling, cooking, consumption of food
 - Miscarriages
- Treatment/ Trivia
 - Aggressive support
 - Blue Bell Creameries, LLP



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Hepatitis A

"So that's why those signs are in the restaurant bathroom"

- Viral illness
 - Easily transmitted from person-to-person
 - Ingesting contaminated food
 - Direct contact
 - Very common disease (millions affected)
- Sxs
 - "Flu-like" presentation
 - Jaundice
- Prevention/ Risks
 - Poor hygiene increases risk
 - Crowded conditions (sanitation)
- Treatment
 - Supportive care
 - Lifelong immunity after exposure
 - HAV vaccine



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Norovirus "Norwalk"

A cruise ship calamity

- Virus
 - Easily aerosolized
 - Direct person-to-person transmission
 - HIGHLY infectious
- Sxs
 - N/V/D, crampy abd pain
 - Generalized "flu"
- Prevention/ Risks
 - "Crowded" condition (Cruise ships)
 - Hand washing soap & water
 - Alcohol gel limits
- Treatment/ Trivia
 - Most common form of viral gastroenteritis
 - Self-limiting, Supportive care
 - Incomplete temporary immunity



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Clostridium botulinum (botulism)

"A Toxic Toxin"

- Anaerobic bacteria (spore)
 - Produces toxin
 - Not transmitted from person-to-person
- Sxs
 - Flaccid paralysis face → limbs
 - Blurred vision, ptosis, N/V/D
 - Cramps, respiratory difficulty
- Prevention/ Risks
 - Infant botulism
 - Contaminated foodstuff
 - Home-canning/ preserving
 - Fermented uncooked dishes
 - Undercooked food
- Treatment
 - Supportive care for weeks
 - Antitoxin



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Cryptosporidium

- Protozoan (parasite)
 - Fecal-oral contamination
 - Drink oocytes
- Sxs
 - Diarrhea
- Prevention/ Risks
 - Unfiltered, untreated fresh water
 - Boil water
- Treatment/ Trivia
 - Limited dz
 - Supportive care
 - Immunocompromised patients at greatest risk



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Questions?



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Homework... what?



For 28 September, "Nutrition & Obesity, Part 1":

1. Download USDA My Plate graphic (found on Scoutlander)
2. Review Req #2: Nutrition
 - a. "Choosing What to Eat" MB pamphlet: pgs. 51- 61; (Kindle pgs. 88 – 103)

"Electives"

1. Chat with parents re: eating habits
 - a. What are your favorite foods?
 - b. How frequently do you eat?
 - c. How do your choices compare to a My Plate balanced meal?
2. Take a tour of the pantry (where / why are foods stored in particular areas).