

# ServSafe® Study Outline

## Chapter 1

### **Types of Hazards**

- Biological
- Chemical
- Physical

### **Factors Affecting Food Safety** (will re-visit this in Chapter 4)

- Time & Temperature
- Cross-Contamination: ready-to-eat food or food contact surface
- Personal Hygiene
- Cleaning and Sanitizing

**“TCS”**: Time & Temperature **C**ontrol for **S**afety (see graphic attached)

**TCS Foods**: (this is how I organize them in my mind)


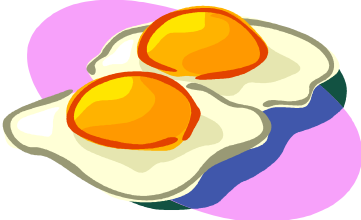
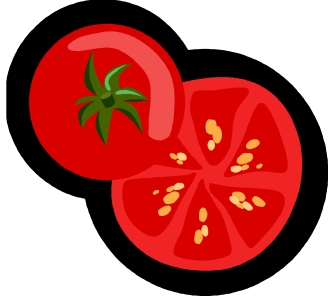
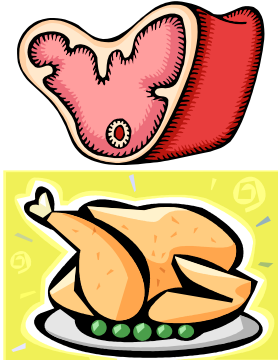
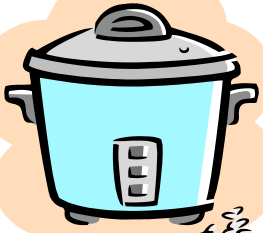







Proteins	Cooked Plants	<b>Cut</b> Produce	Other
Meat	Rice	Melons	Sprouts
Poultry	Beans	Greens	Garlic-oil
Fish	Baked potato	Tomatoes	
Eggs			
Dairy			
Soy products			

### **High-Risk Groups**:

\* **HINT: PIE** (See graphic attached)

**Note: USDA adds 2 groups: “PIE + PI”**

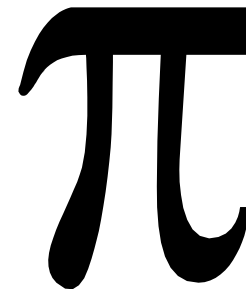
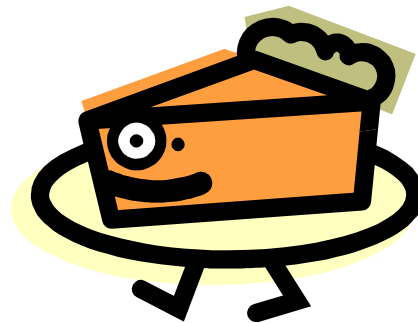
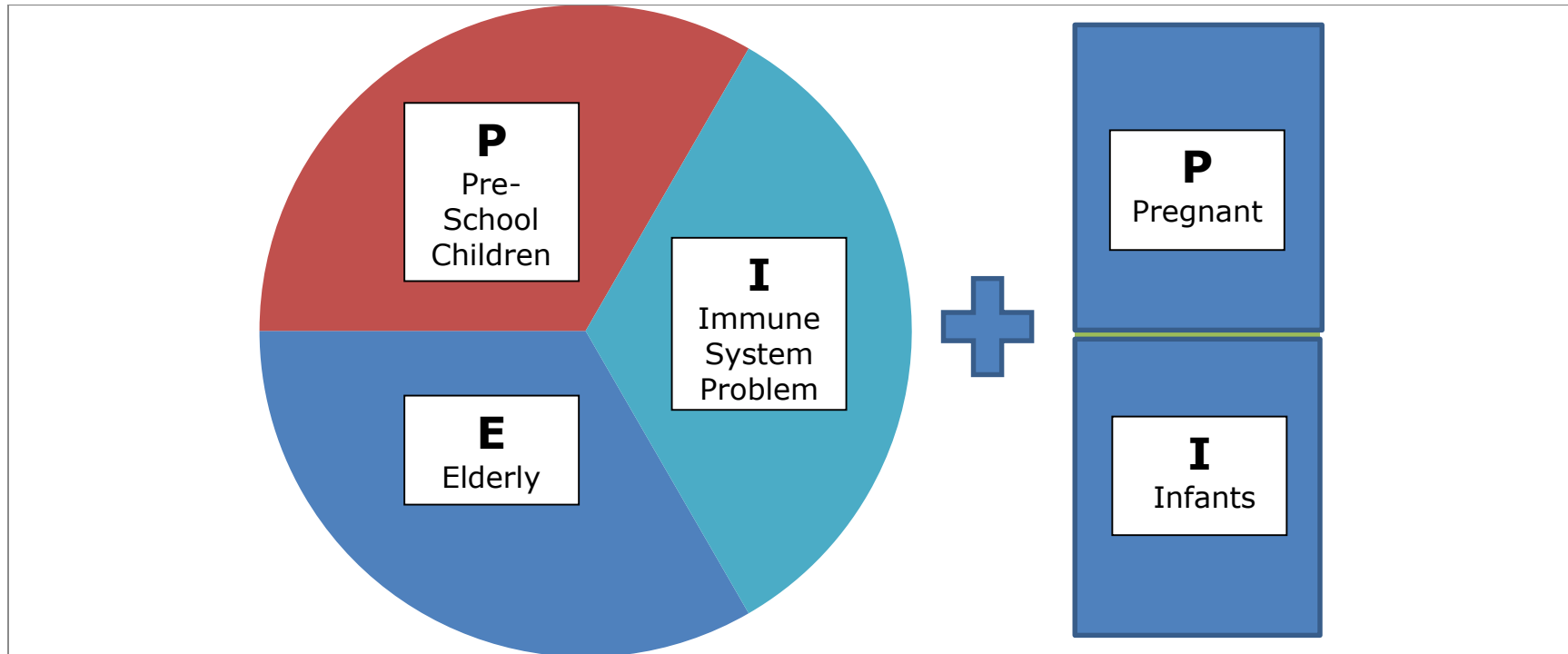
## CH 1: FOODS THAT NEED TIME/TEMPERATURE CONTROL (TCS)

<b>Milk and Dairy</b> 	<b>Shell Eggs</b> 	<b>Cut Tomatoes (Salsa)</b> 
<b>Meat and Poultry</b> 	<b>Cooked Rice and Beans</b> 	<b>Cut Leafy Greens</b> 
<b>Fish, Shellfish and Crustaceans</b> 	<b>Baked Potatoes</b> 	<b>Sprouts</b> ( <b>Do not use raw!</b> ) 
<b>Tofu and Soy Foods</b> 	<b>Cut Melons</b> 	<b>Garlic &amp; Oil Mixed</b> 

## CH 1: High-Risk Groups for Food-Borne Illness: **P-I-E**

ServSafe® (FDA) = P.I.E.

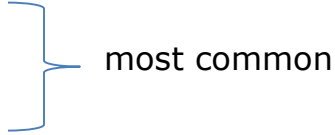
USDA = P.I.E. + P.I.



# ServSafe® Study Outline

## Chapter 2

### **Biological Hazards** – chart attached

- Bacteria
  - Viruses
  - Parasites
- 
- Fungi
  - Bio-toxins

### **"HESSN"** – \***HINT** – like a snake...

6 organisms: highly contagious, cause severe illness

### **"FAT-TOM"** – Bacterial growth factors

- Food
- Acid
- Temperature
- Time
- Oxygen
- Moisture

### **Allergens**

<b>Animal Source</b>	<b>Plant Source</b>
Dairy	Soy
Eggs	Wheat
Fish	Peanuts
Shellfish	Tree nuts (walnut, almond, pecan)

### **Symptoms**

<b>Food-Borne Illness</b>	<b>Food Allergy</b>
Diarrhea	Wheezing/short of breath
Vomiting, abdominal cramps	Hives/itching
Fever	Swelling of eyes, face
Jaundice	

### **Response to Report of Food-Borne Illness**

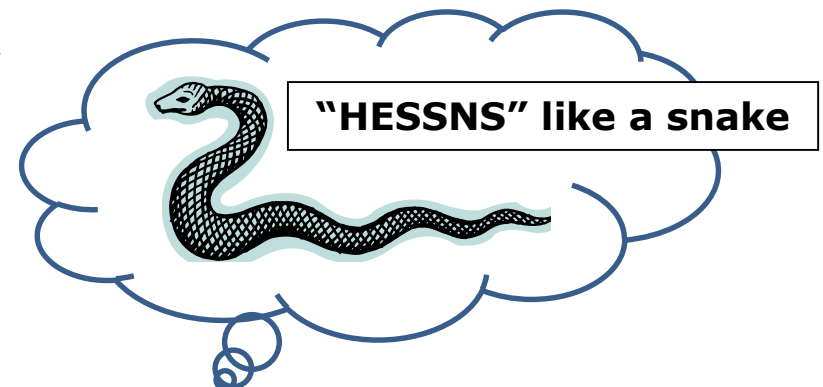
"Segregate" suspected food: Mark "DO NOT USE, DO NOT DISCARD"

## CH 2: Biological Contamination – Main Sources

Type	Major Source(s)	How to Control
<b>Bacteria</b>	Dirty hands Improper cooking	Bacteria – general control: <ul style="list-style-type: none"> <li>• <b>Time/Temperature control</b></li> <li>• Wash hands</li> <li>• No bare-hand contact - Ready-to-Eat food</li> </ul>
❖ <i>Salmonella typhi</i>	People	Personal hygiene & hand washing
<i>Salmonella</i> NTS (non-typhoidal)	Poultry	Cook poultry to 165°F
❖ <i>Shigella</i>	Fecal - flies	Control flies
❖ <i>E. Coli</i> (O157:H7)	Ground beef, produce	Cook ground beef to: 155°F (FDA) 160°F (USDA)
<i>Clostridium botulinum</i>	Canned food, foil-wrapped potatoes, garlic/oil	Do not use dented or bulging cans Time-temperature control
<i>Listeria monocytogenes</i>	Lunch meat, hot dogs	Lives in cold temps - risk in pregnancy
<i>Staph. aureus</i>	"Staph = Staff"	Personal hygiene & hand washing
<b>Viruses</b> Need "living host"	Dirty hands	<ul style="list-style-type: none"> <li>• Personal hygiene &amp; hand washing</li> <li>• No bare-hand contact - Ready-to-Eat food</li> </ul>
❖ Hepatitis A		<b>** Not destroyed by normal cooking</b>
❖ Norovirus	Sick workers Shellfish	<ul style="list-style-type: none"> <li>• Do not work if sick (Hep A – jaundice)</li> <li>• Buy seafood from approved source</li> </ul>
<b>Parasites</b> Need "living host"	Seafood Wild game	Buy seafood from approved source Cook to proper temperature

❖ **6 highly contagious/severe illness = "HESSNS"**

Hepatitis A, E. Coli, Salmonella (2 types),  
Shigella, Norovirus



## CH 2: COMMON FOOD ALLERGENS - THE "BIG 8"

### Milk and Dairy



### Soy Products



### Fish



### Wheat



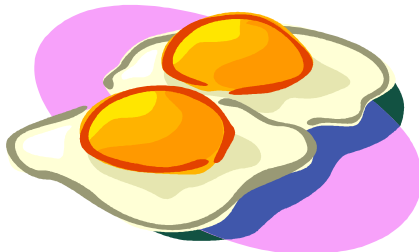
### Shellfish



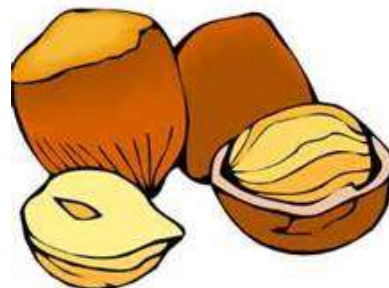
### Peanuts



### Eggs



### Tree Nuts



## **Activities for Chapters 1-2**

**High-Risk Groups: What does each letter stand for?**

P \_\_\_\_\_

I \_\_\_\_\_

E \_\_\_\_\_

+

P \_\_\_\_\_

I \_\_\_\_\_

**FAT-TOM: What does each letter stand for?**

F \_\_\_\_\_

A \_\_\_\_\_

T \_\_\_\_\_

T \_\_\_\_\_

O \_\_\_\_\_

M \_\_\_\_\_