



# Pathogenic Microbes Part 1

Salmonella and Salmonellosis

# + Salmonella

## What is Salmonella?

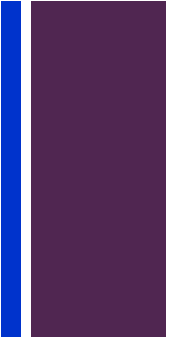
- It is a bacterium that causes illness in human beings

## Facts about Salmonella

- Dr. Salmon was the first scientist to discover salmonella
- In recorded history salmonella has been shown to be causing illness for the last 125 years

# + What illness is caused by Salmonella?

- Salmonellosis

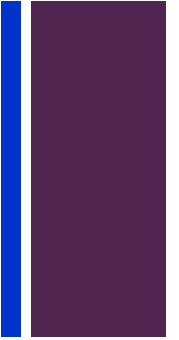


# + What are the symptoms salmonellosis?

- Symptoms typically arise between 12 to 72 hours after infection and include:
  - Abdominal cramps
  - Diarrhea
  - Fever
- Note: the symptoms above are not limited to just salmonellosis (these symptoms can be seen in the common cold, flu, etc.)
- Symptoms typically last between 4 to 7 days
  - Most individuals heal in this time frame without medical intervention

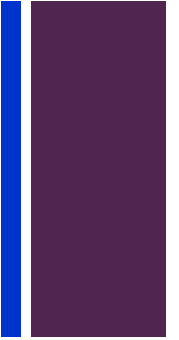
# + Who is more susceptible (more likely to get sick) with Salmonellosis?

- Infants
- Elderly
- People with compromised immune systems
  
- However, anyone can become sick from exposure to Salmonella



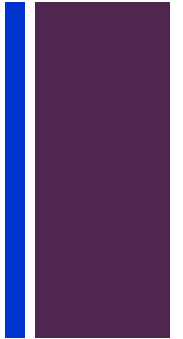
# + What long-term consequences are there of Salmonellosis?

- Most people have difficulties going to the washroom for several months
- Few individuals develop reactive arthritis (pain in the joints)
  - Of these individuals some will develop chronic arthritis





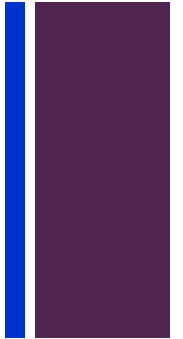
# Prevention guidelines from the CDC



- Cook poultry, ground beef, and eggs thoroughly.
- Do not eat or drink foods containing raw eggs, or raw (unpasteurized) milk.
- If you are served undercooked meat, poultry or eggs in a restaurant, don't hesitate to send it back to the kitchen for further cooking.
- Wash hands, kitchen work surfaces, and utensils with soap and water immediately after they have been in contact with raw meat or poultry.



# Prevention guidelines from the CDC

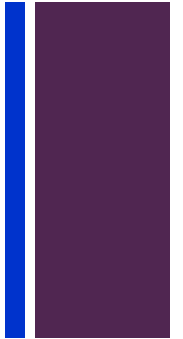


- Be particularly careful with foods prepared for infants, the elderly, and the immunocompromised.
- Wash hands with soap after handling reptiles, birds, or baby chicks, and after contact with pet feces.
- Avoid direct or even indirect contact between reptiles (turtles, iguanas, other lizards, snakes) and infants or immunocompromised persons.



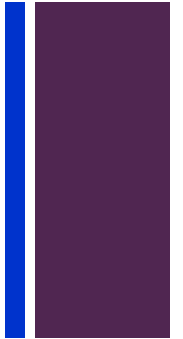


# Prevention guidelines from the CDC



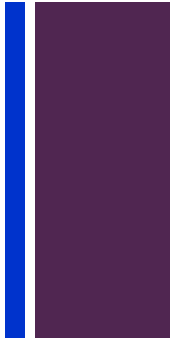
- Don't work with raw poultry or meat, and an infant (e.g., feed, change diaper) at the same time.
- Mother's milk is the safest food for young infants.
- Breastfeeding prevents salmonellosis and many other health problems.

# + Diagnosis and Treatment



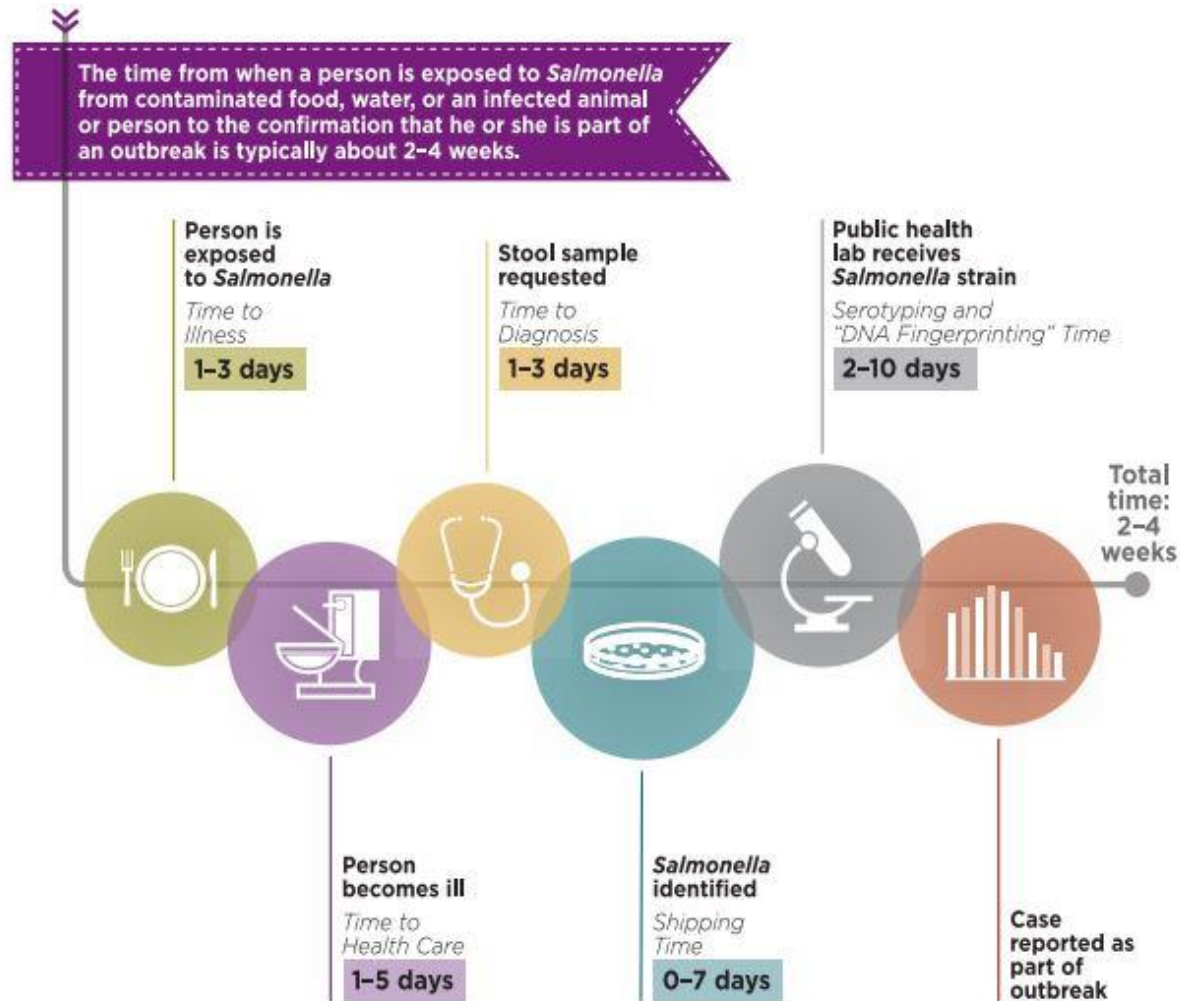
- Salmonellosis is diagnosed by the use of a blood and/or stool sample
- The treatment is sometimes antibiotics but typically the illness is left to run its course

# + Salmonella Outbreak



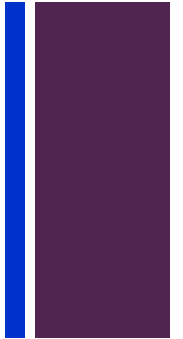
- A salmonella outbreak is when 2 or more individuals become sick with salmonellosis from the same food source.

# + Salmonella Outbreak





# References



- Salmonellosis: <http://www.webmd.com/food-recipes/food-poisoning/tc/salmonellosis-topic-overview#1>
- Questions and Answers: <https://www.cdc.gov/salmonella/general/index.html>
- Prevention: <https://www.cdc.gov/salmonella/general/prevention.html>
- Diagnosis and Treatment: <https://www.cdc.gov/salmonella/general/diagnosis.html>
- Outbreaks: <https://www.cdc.gov/salmonella/outbreaks.html>