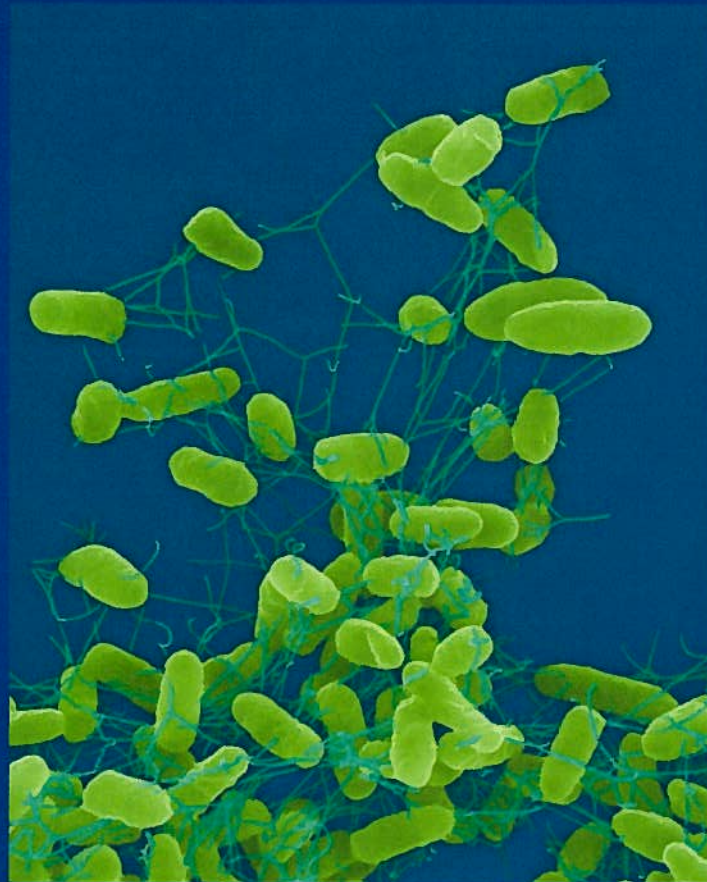


# *Salmonella* spp.



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# *Salmonella* spp.

- causes the illness salmonellosis
- numerous serotypes are pathogenic for both animals and people
- the two most common serotypes in the United States are *S. Typhimurium* and *S. Enteritidis*
- occurrence is worldwide, although most cases are not recognized clinically with as few as 1% being reported in industrialized countries
- there are approximately 40,000 cases of *Salmonella* reported each year





# The Organism

- gram-negative
- rod-shaped, motile bacterium
- non-spore forming
- anaerobic
- over 23,000 known serotypes



# Reservoir/Sources

- widespread occurrence in animals including poultry, swine, cattle, and rodents
- pets such as iguanas, tortoises, turtles, terrapins, dogs, and cats
- humans such as patients, convalescent carriers, and especially mild and unrecognized cases



# Mode of Transmission

- ingestion of the organisms
- food derived from infected animals or contaminated by feces of an infected animal or person
- includes raw and undercooked eggs/egg products, raw milk/milk products, meat/meat products, poultry/poultry products, and contaminated water
- cross-contamination of other foods such as raw fruits and vegetables
- person-to-person spread by fecal-oral transmission is important especially when diarrhea is present

# Signs and Symptoms

- sudden onset of headache, abdominal pain, diarrhea, nausea and sometimes vomiting
- fever almost always present
- infection may develop into septicemia or focal infection
- dehydration may be severe especially among infants and the elderly





# Incubation Period

- usually about 12 – 36 hours
- range from 6 – 72 hours
- illness usually lasts 4 to 7 days



# Diagnosis and Treatment

- established by serological identification of culture isolated from stool
- replacement of fluids and electrolytes is an important aspect of treatment due to dehydration caused by diarrhea
- most patients can be treated without medication
- antibiotics are indicated for infants up to 2 months of age, the elderly, the immunocompromised, and those who have extraintestinal findings





# Prevention

- cook all egg (155°F), poultry (165°), and meat (145°) products to the proper internal temperatures
- use pasteurized or irradiated egg products when necessary
- proper hand washing before, during, and after food preparation, as well as after using the bathroom
- avoid cross-contamination of raw and ready-to-eat foods
- exclude individuals with illness or diarrhea from food handling, and educate known carriers on the importance of hand washing

