

# Human & Animal Diseases

The exchange of diseases between animals and us!



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# Diseases of major concern

- Pigs

- Leptospirosis
- Trichinellosis
- *Escherichia coli*

- Cats

- Worms
- Cat Bites
- Ringworm

- Dogs

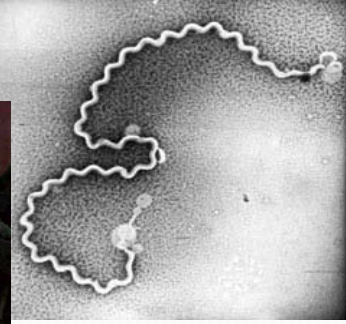
- Leptospirosis
- Dog Bites
- Ringworm
- Worms
- \*Rabies – not yet here\*

- Poultry

- Salmonellosis

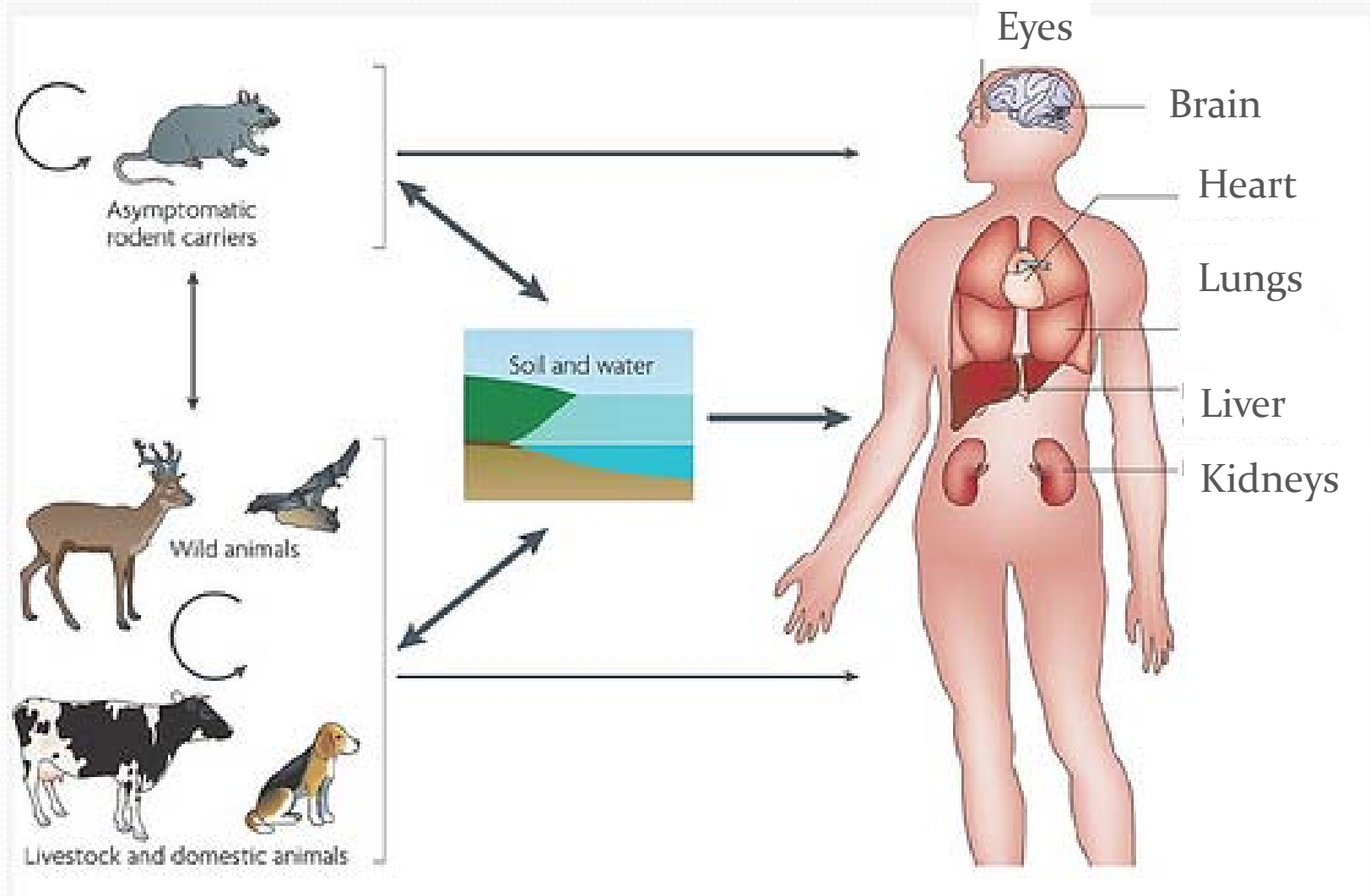
# Leptospirosis

- Affects people!!!
- Lives in streams, lakes, rivers, and waters around island.
- Many types of Lepto.
- Rats, wild *and* farm pigs, dogs other animals, and people.
- Signs - fever, depression, muscle pain.
- Often progresses to kidney damage.
- **PREVENTION: VERY Important reason to keep animal waste runoff away from water sources/swimming areas.**



# Leptospirosis

Can Cause Severe Problems and Inflammation of:





# Leptospirosis



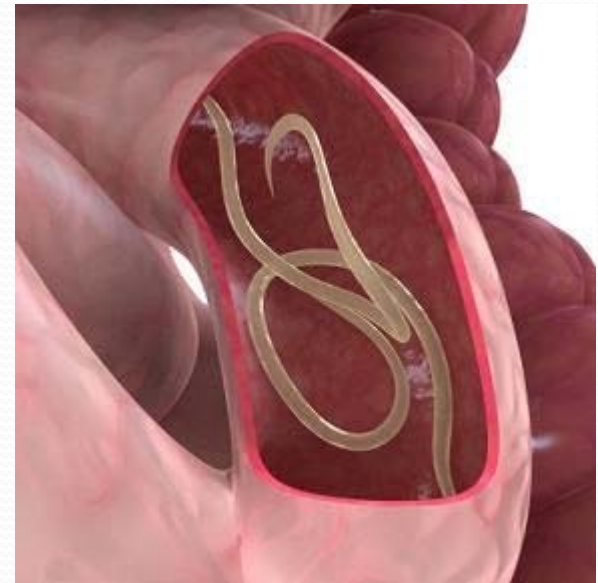
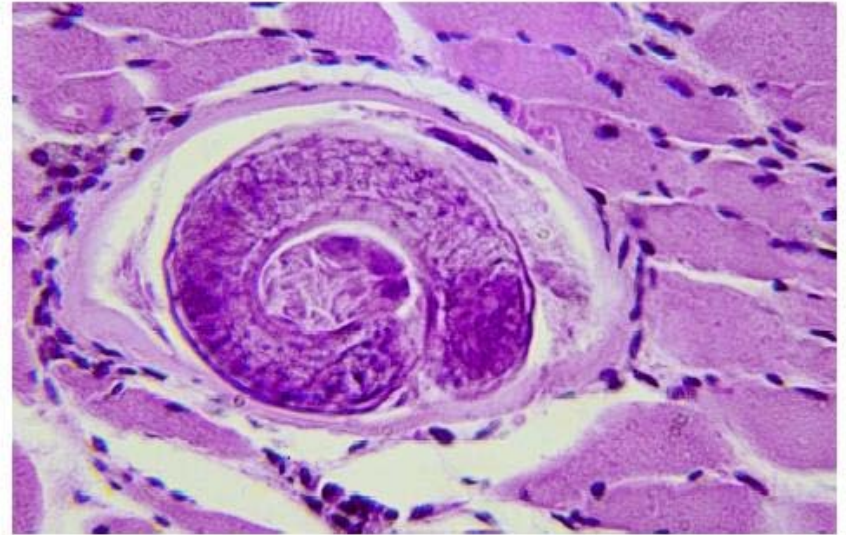
- **PREVENTION:**

**VERY Important reason to keep animal waste away from water sources & swimming areas.**



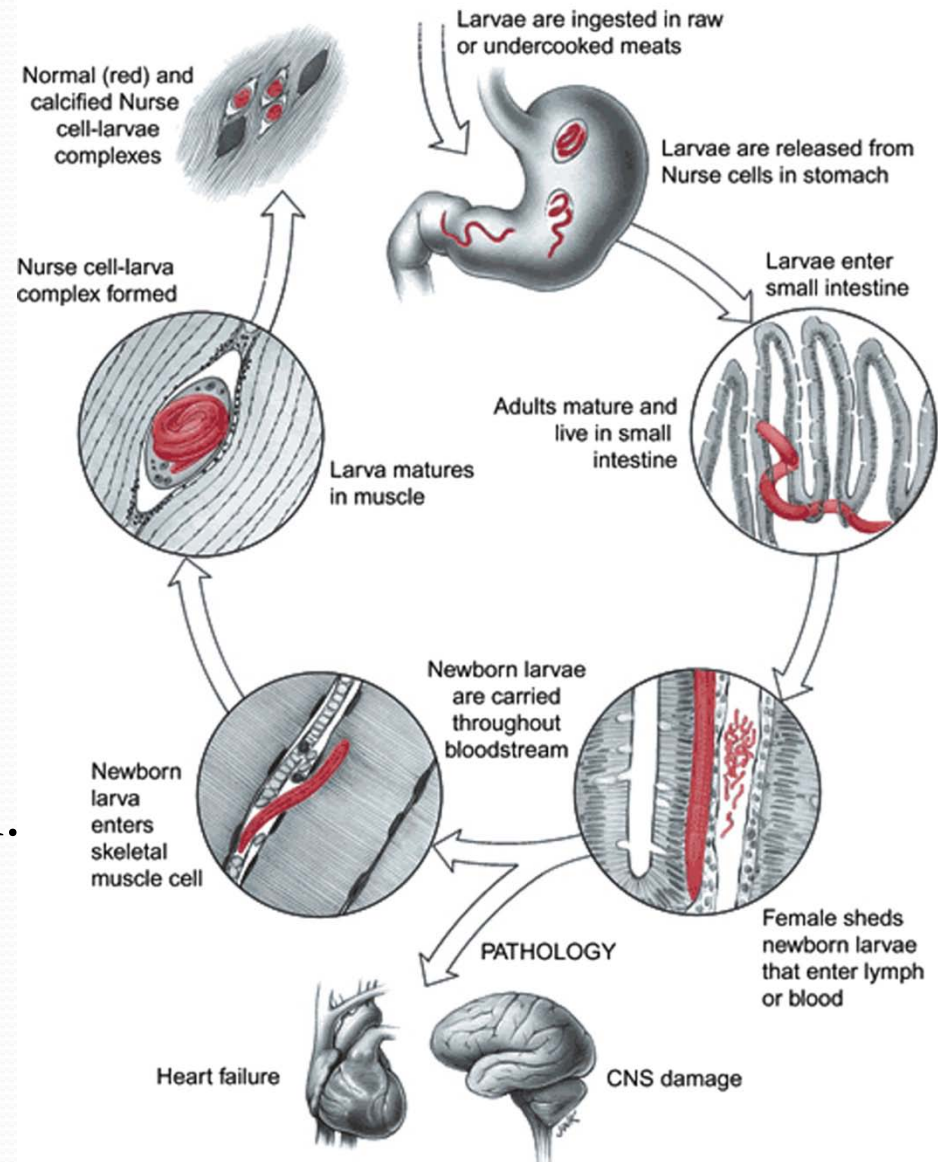
# Trichinosis

- Infection with the roundworm *Trichinella spiralis*.
- Caused by eating undercooked meat containing cysts of *Trichinella*.
- Can be found in pork, rat, dog and horse meat.



# Trichinosis

- After you eat meat from an infected animal, *Trichinella* cysts break open in your intestines and grow into adult roundworms.
- Then invade muscle tissues, including the heart (they make new cysts in you!). They can also affect your lungs and brain.
- Causes stomach discomfort, cramping, diarrhea, swelling around the eyes, fever, and muscle pain.



# Trichinosis

- **PREVENTION:** Meat should be cooked until well done (no traces of pink). If taking pork home after gathering – recook until completely cooked!
- Freezing for 3 to 4 weeks will kill the organism.
- Smoking, salting, or drying meat are not reliable methods of killing the *Trichinella* cysts.





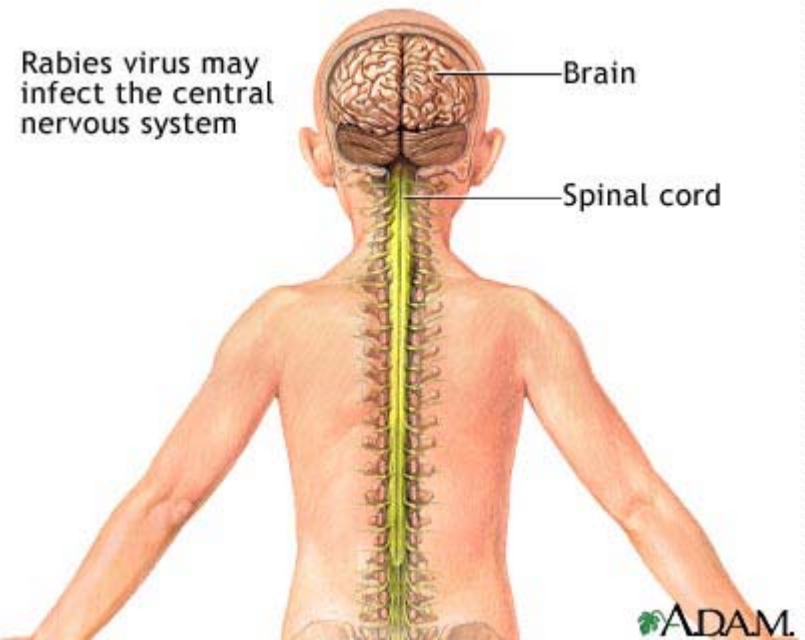
# Dog and Cat Bites

- Animal bites are the most common zoonosis!
- Up to 4.7 million animal bites occur each year.
- 50% of people will be bitten by a dog or cat during their lifetime.
- Annual cost of approximately \$100-165 million dollars in health care expenses and lost income.
- Children are the most frequent victims of dog bites, with 5-9 year-old boys having the highest incidence.
- Often bitten by dog in family or close friends' house!!
- 80% of deaths from bites were among kids <11 years of age.
- **PREVENTION: Keep dogs on property.**
- **Don't keep dogs that show aggression.**
- **Control dogs – esp. when children are around.**



# Rabies

- Not here – keep it that way!
- Almost all persons infected by rabid animals will die if not treated.
- Most often due to dog bites.
- An estimated number of 55,000 persons, mainly children, die of this disease in the world every year.
- **PREVENTION: Be VERY careful with animals brought into country – follow quarantine and testing!!!**



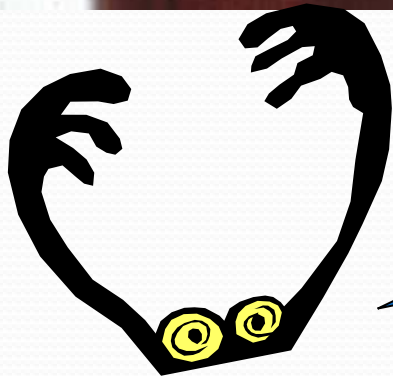
# Ringworm

- Fungus called *Tinea*
- Body, scalp, groin area (jock itch), or feet (athlete's foot).
- It can be passed from one person to the next and can also catch ringworm from pets (esp. cats) that carry the fungus.
- **PREVENTION: Watch for signs on other people and animals and wash hands after touching/handling.**





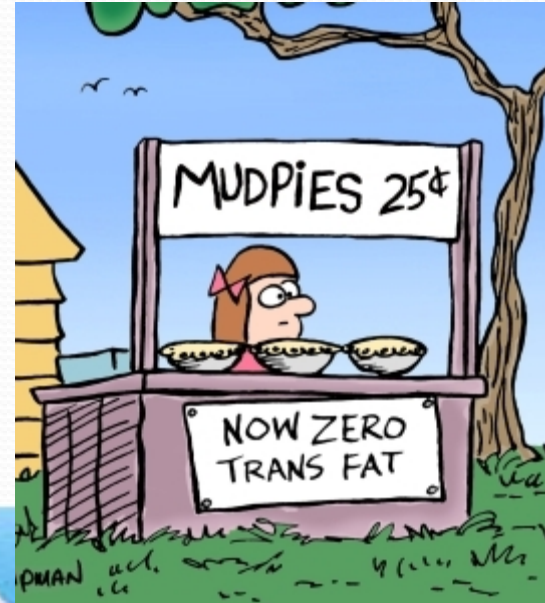
# Hookworms & Roundworms



**They are like  
monsters!!!!**

# Hookworms & Roundworms

- Carried by dogs and cats.
- Kids often get infected from playing in area where animals have defecated.
- Or by putting toys in their mouth after being on the ground.
- **PREVENTION:**  
**Clean up after pets.**  
**Wash hands often.**



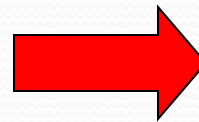
# Hookworms



- Passed in feces....
- Can penetrate the skin and gain entry into the human body
- Bare feet are a common route of entry

**PREVENTION: Wearing shoes is one of the best ways to prevent parasites from entering your feet!!!**

**Also – pick up after pets.**





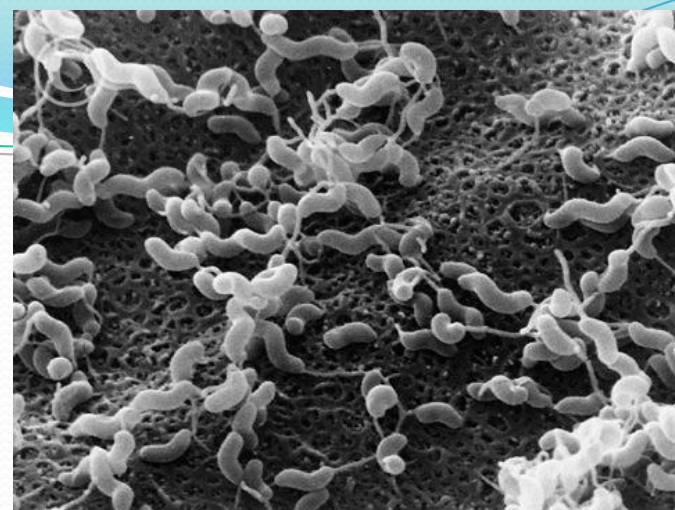
# When food can be source of problem!



- Most foodborne illness cases go unreported to health departments, nearly 13.8 million food poisoning cases are reported!
- **PREVENTION: Keep raw meat separate from ready-to-eat foods.**
- **Cook all meats all of the way!!**
- **Wash fruits and vegetables thoroughly.**

# Campylobacter

- Most common cause of bacterial foodborne illness in the United States.
- Poultry is the most common food implicated.
- Others include undercooked meats, cheese, pork, shellfish, and eggs.
- Happens every now and then.
- Pets can also carry this disease.
- Starts 2-5 days after ingesting bacteria
- Diarrhea (sometimes bloody) lasts about a week.
  - Also fever, nausea, vomiting, abdominal pain, headache, and muscle pain.
- **PREVENTION: Adequately cook all poultry products.**

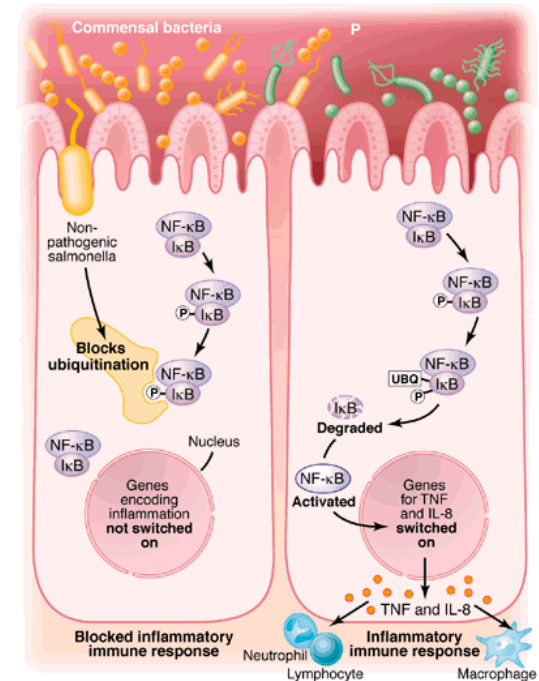


b220299 [RM] © www.visualphotos.com

# Salmonella

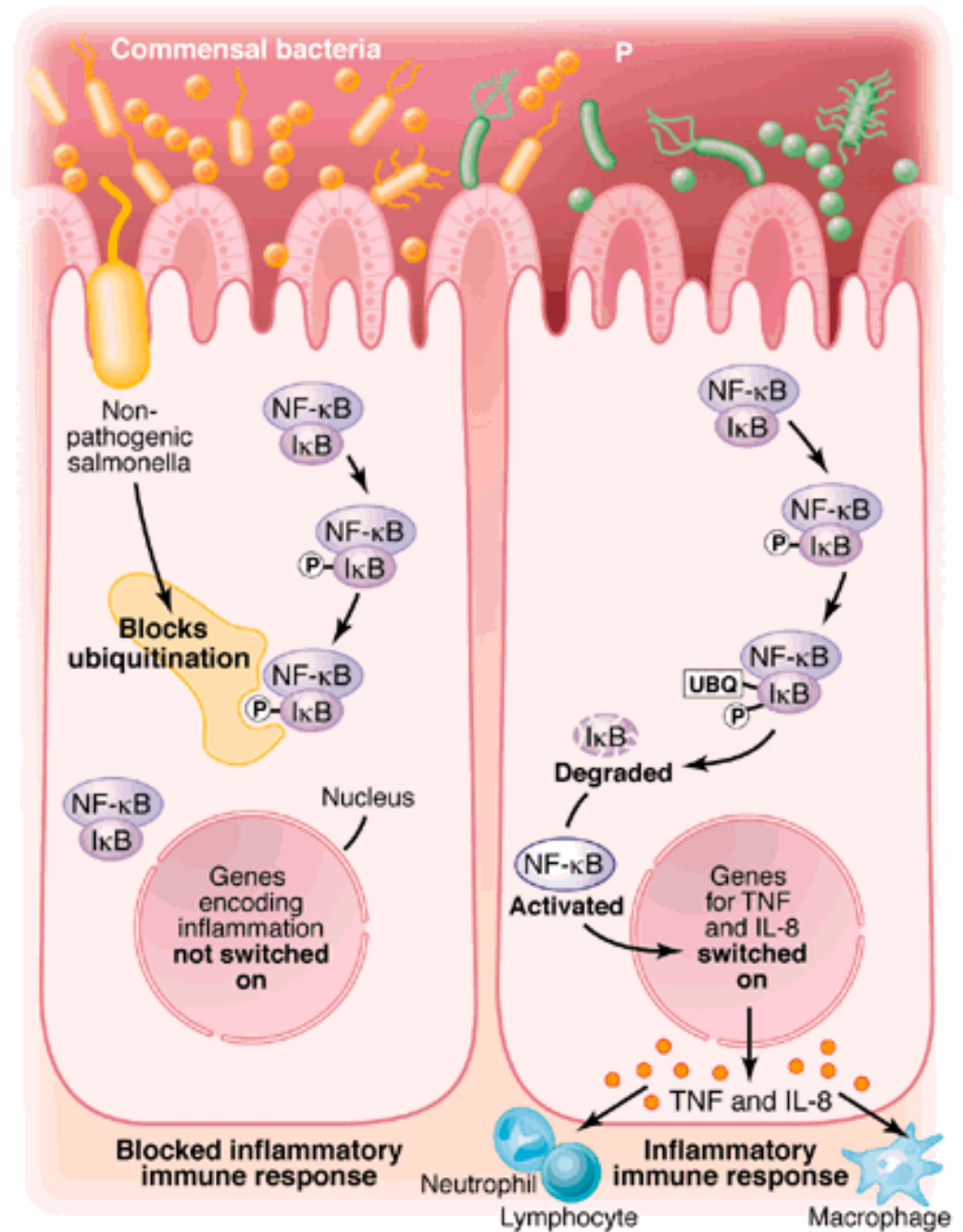


- Second most common bacterial foodborne illness. Closely related to *E. coli*.
- Sudden onset of nausea, abdominal cramping, and bloody diarrhea (can have mucous).
- Usually occurs within 6 to 72 hours after the ingestion (faster onset); stops within a week.
- Undercooked eggs, raw milk, contaminated water, meat products, and poultry.
- Found in feces of many animals.
- During slaughter, feces can get on meat...
- **PREVENTION: Keep meat clean during slaughter and cook meats all of the way.**



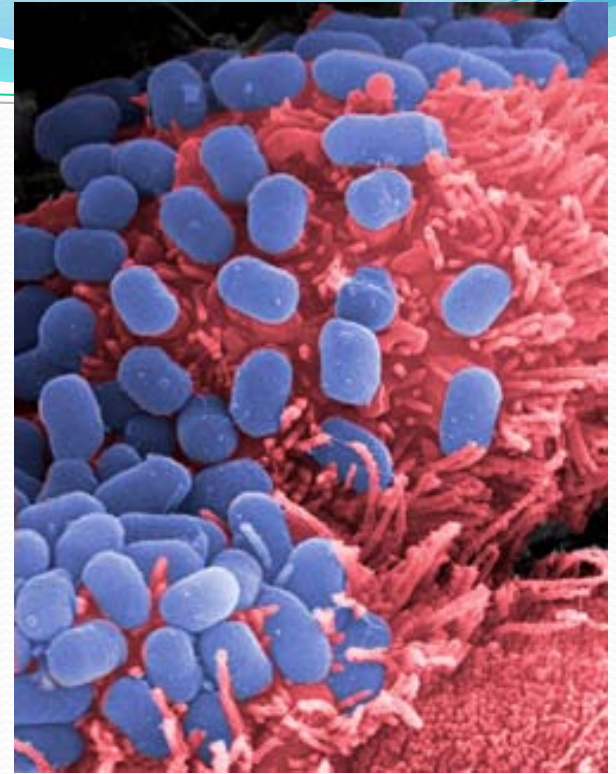


# Salmonella



# E. coli

- Part of the normal gut 'bugs' in most animals.
- Certain types cause more sickness than others. O157:H7 is not common.
- Sickness starts from 2-10 days after ingestion and lasts about a week.
- Causes diarrhea (can be bloody), general sickness.
- Found in undercooked meat – esp. beef, some pork & chicken.
- **PREVENTION: Keep meat clean during slaughter and cook meats all of the way.**



# When food can be source of problem!

## PREVENTION IS KEY!





# Thank you for sharing time with us!

