

Avian Influenza

BIRD FLU



What is Avian Influenza

- Avian influenza refers to the disease caused by infection with avian (bird) influenza (flu) Type A viruses.
- These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species.
- Avian flu viruses do not normally infect humans.
- However, sporadic human infections with avian flu viruses have occurred.



Eating Poultry: (chicken, turkeys, ducks)



- Handling or consuming properly cooked poultry is not a risk factor for getting avian influenza.
- Every commercial flock is tested before becoming food.



Where is Avian Influenza Found?

Blue Wing Teal



Mallards



Herring Gulls



- Naturally in wild birds, **usually with no symptoms**
- Duck, gull, and shorebirds species are may be infected
- All type A influenza viruses originate from wild birds



Type A Influenza

- Wide host range, strain dependent
 - Poultry
 - Swine
 - Horses
 - Whales
 - Seals
 - People
- Infection may not cause disease
- The natural host for type A influenza viruses are wild waterfowl, shorebirds and gulls



Avian Influenza: Infection and Disease

- Infection may cause a wide range of clinical signs from no disease (asymptomatic), respiratory disease, to severe disease with high mortality in birds
- Localized Infection-mild to moderate disease
 - Intestinal-wild ducks and shorebirds, poultry
 - Respiratory-humans, swine, horses, poultry, domestic ducks, seal, mink
- Systemic Infection-high mortality
 - chickens, turkeys, other gallinaceous birds



Avian Influenza

- Not normally found in domestic ducks, chickens and turkeys
- Transmission comes from wild birds to domestic ducks, turkeys, chickens
- Rare occasions may become established in chickens and turkeys (may kill entire flock)
- Avian Influenza can be difficult to eradicate





← Healthy turkeys



← 8-10 hours post infection

24-36 hours post infection →
Nearly 100% mortality



What to Look for in Sick Chickens...

- Drop in egg production or misshapen eggs
- Swelling of head, eyelids, combs and hocks
- Diarrhea
- Purplish discolored combs and wattles
- Breathing difficulty runny nose
- Drooping wings, shaking or other movement problems

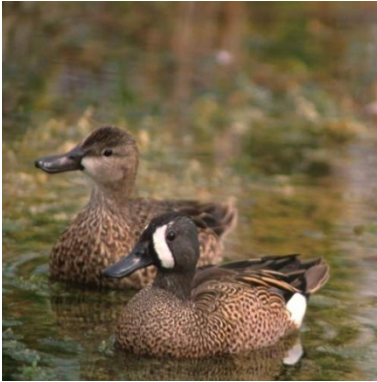




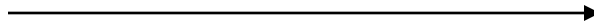




Emergence of Avian Influenza



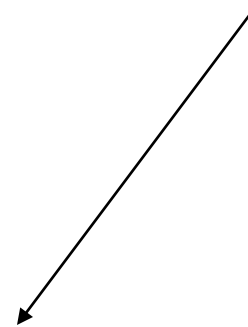
LPAI H5 or H7 virus transmitted to poultry



LPAI virus circulates in poultry with mild disease



LPAI Virus Mutates to HPAI with severe disease



So why are we worried?

Viruses can adapt,
increasing it's ability to find
and thrive in other animals
or humans...

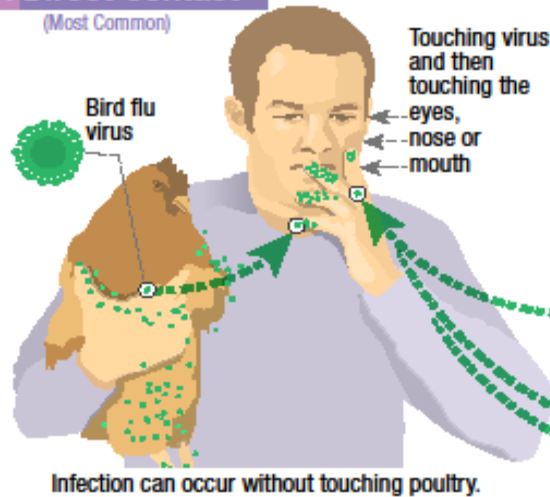


How Infected Backyard Poultry Could Spread Bird Flu to People

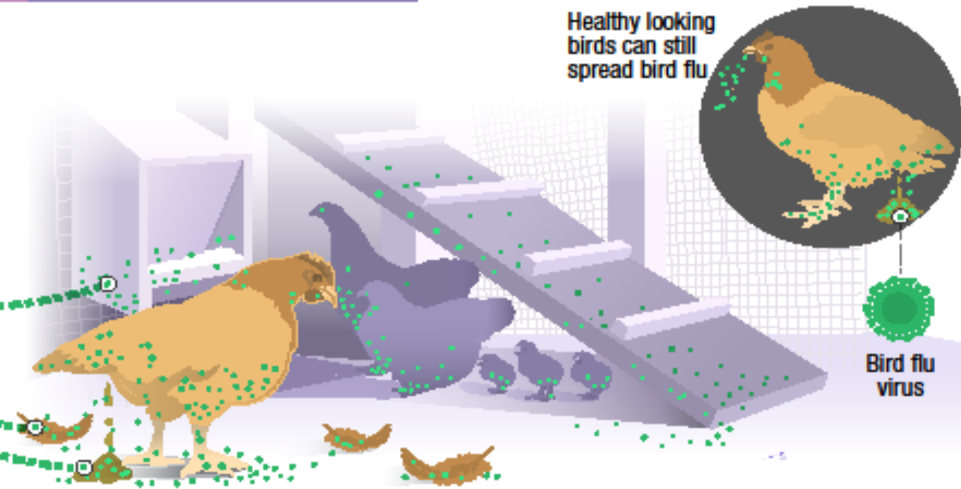
Human Infections with Bird Flu Viruses Rare But Possible

1 Direct Contact

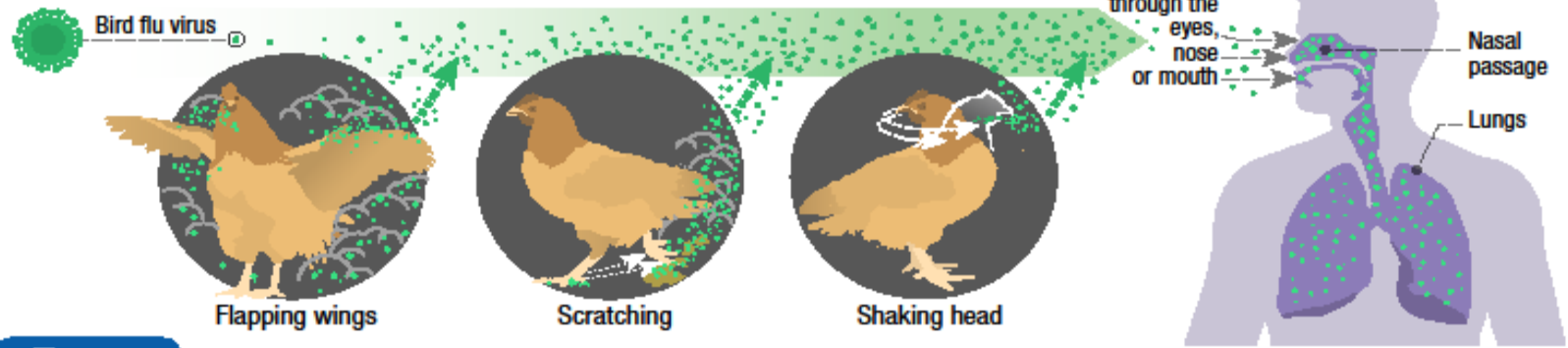
(Most Common)



2 Contaminated Surfaces



3 Bird Flu Virus in the Air (in Droplets or Dust)



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

www.cdc.gov/flu/avianflu/avian-in-humans.htm

CS261152



Methods of Control

- Stamping out-infected flocks and destroy them to prevent spread to other flocks
- Vaccination
- Preventing exposure to sick birds
- Washing your hands
- Cleaning and disinfecting surfaces



Flu virus can live up to 48 hours on surfaces

1. Remove visible dirt.
2. Clean surface with EPA-registered product that both cleans (removes germs) and disinfects (kills germs).
3. Be sure to read the label directions carefully, as there may be a separate procedure for using the product as a cleaner or as a disinfectant. Disinfection usually requires the product to remain on the surface for a certain period of time (e.g., letting it stand for 3 to 5 minutes).



Conclusions

- Avian Influenza is a threat to Alabama because of large poultry production.
- The virus is present in wild birds and is a source of transmission to domestic/commercial poultry
- Avian Influenza poses a public health threat.
- Strains can become highly infectious.
- Strains have shown the ability to infect new species including people, which has occurred in Asia.



Conclusions (cont)

- The current outbreaks have not yet shown the potential to infect humans, BUT we must be prepared
- People at most risk are believed to be the personnel involved in poultry operations or disease control (depopulations) Thus the importance of public health's role in **surveillance (e.g. monitoring of symptomatic people)**
- ADPH is preparing with other agencies and response personnel to have surveillance for symptomatic people in the advent of an outbreak in Alabama.



Testing Birds (yard birds, chickens, ducks, turkey)

Report Sick or Dead Chickens, Ducks or Turkeys

Alabama Department of Agriculture
Industries Poultry Unit

334-240-6584



Testing Humans...

- Notify Infectious Diseases & Outbreaks Division at 1-800-338-8374 if exposed to sick poultry or confirmed bird, flock, or farm.
- Contact your medical provider for Influenza testing. Specimens should be sent to the State Lab for testing.
- **Symptoms:** conjunctivitis , fever, cough, sore throat, muscle aches, sometimes accompanied by nausea, abdominal pain, diarrhea, vomiting





Questions???