

Preventing Disease Transmission in Livestock and Poultry

DIRECT CONTACT



One way animal diseases can spread is by direct contact. These prevention measures can help minimize the risk of disease exposures by direct contact transmission for your animals and the people around them.

WHAT IS DIRECT CONTACT TRANSMISSION?

Disease transmission by direct contact requires the presence of a disease causing organism (e.g., bacteria, virus) in the environment or within an infected animal. Direct contact transmission of disease causing organisms can happen by physical contact with body fluids (e.g., blood, saliva), nose-to-nose contact, grooming activities between animals, or even rubbing or biting.

Some diseases are spread directly during reproduction – during breeding (natural or artificial) or from mother to offspring during pregnancy (in-utero), birth, or when nursing.

It is important to remember that animals may not show signs of illness even when infected. Diseases may also spread to animals of different species as well as to people by direct contact.

WHAT ARE WAYS TO DECREASE DIRECT CONTACT TRANSMISSION OF DISEASES BETWEEN ANIMALS?

- Quarantine new or returning animals before allowing contact with other animals in your herd/flock. Talk to your veterinarian for an appropriate protocol for testing and quarantine.
- Separate sick animals from healthy animals to reduce contact between them.
- Limit contact between animals of differing ages on your operation. Younger animals are generally more susceptible than older animals to diseases.
- Maintain adequate space for animals to utilize feed, water, and shelter/shade sources.
 - Providing adequate space can reduce direct contact between healthy animals and those that may have disease.
 - Work with your herd/flock veterinarian and/or your local livestock extension specialist to determine the ideal stocking density for your pastures/pens.
 - Clean or move congregation sites frequently to prevent accumulation of waste.
- Prevent fence line contact between your animals and neighboring livestock.
- Minimize contact between wildlife and your flock/herd.



Photos from (top) Renée Dewell, Iowa State University; (middle) Megan Smith, Iowa State University CFSPH; (bottom) Sam Michel, Flickr, CC BY 2.0

Prevent Transmission During Reproduction

- Ensure that animal births take place on clean, dry bedding or pasture. Clean bedding should be added between animals.
- During birth, disease-causing organisms can be shed into the environment.
 - Deeply bed birthing pens with absorbent material (e.g. straw, sand, wood shavings or paper) to drain fluids (e.g. manure, urine) away from the newborn animal and minimize contact.
 - When possible, clean dirty udders before birth.
- Dip the navel of newborn animals with chlorhexidine or iodine soon after birth.
- Provide a dry place for animals to lie down so udders or teats do not become covered with mud or feces. This will reduce the risk of mastitis and disease exposure for the newborn animal.
- Limit the sources and number of breeding replacement animals to purchases of those that have tested negative for diseases of concern.
- Verify that embryos or semen used in embryo transfer/artificial insemination programs are checked for quality and are from animals that test negative for diseases of concern.



Photo from Renée Dewell, Iowa State University

WHAT ARE WAYS TO DECREASE TRANSMISSION BY DIRECT CONTACT TO PEOPLE?



Photo: CFSPH, Iowa State University

Some diseases of animals can spread by direct contact transmission to people. Take these precautions when working with animals to prevent exposure.

- Always wash hands after contact with animals.
- Wear protective clothing—such as gloves or palpation sleeves – when touching wound lesions, body fluids, or assisting with reproduction events.
- Wash hands after removing gloves or other protective clothing (e.g., gloves, masks, boots, coveralls).
- Minimize the number of people around sick animals.

FOR MORE INFORMATION

Animal Diseases By Routes of Transmission. Center for Food Security and Public Health.

Disease Exposure Route Resources. Center for Food Security and Public Health.

Biosecurity Tip Sheets. Center for Food Security and Public Health.

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