

Influenza in Workers and Pigs: Guidance for Commercial Swine Farmers and Pork Producers

Flu refers to illnesses caused by a number of different influenza viruses. Flu can cause a range of symptoms and effects, from mild to lethal. Although flu viruses that circulate in pigs are different from flu viruses that circulate in people, sometimes flu viruses have been transmitted between people and pigs.

This Fact Sheet provides worker health and safety guidance to employers who operate swine farms and pork production facilities where workers are in close contact with pigs. The goal of this Fact Sheet is to protect workers exposed to pigs with known or suspected flu infection.

Influenza viruses typically spread through coughing or sneezing, and through contact with surfaces contaminated by flu viruses. It is important to recognize the signs of flu both in live swine and in swine farm workers so that appropriate precautions can be taken.

Signs of Flu in Pigs

- High fever
- Lethargy
- Going off feed
- Coughing (barking)
- Nasal discharge
- Sneezing
- Breathing difficulties

If pigs show these signs, even mildly, appropriate veterinary care should be provided.

Hygiene Practices

Workers should be instructed in the following good hygiene practices:

- Cover your nose and mouth with a tissue when coughing or sneezing. Throw used tissues in the trash. If you do not have tissue, cough or sneeze into your upper sleeve.
- Do not touch your eyes, nose and mouth.
- Wash your hands often, using soap and water for 20 seconds. Use alcohol-based sanitizer if soap and water are not available.
- Shower and change your clothes when entering and leaving work.

Workers should be instructed to wash their hands:

- Before and after contact with pigs
- After contact with contaminated equipment or surfaces
- Before and after use of personal protective equipment

Personal Protective Equipment (PPE)

Compliance with personal protective equipment recommendations can protect workers, protect live swine from people with flu, and reduce the chances of carrying the flu virus outside the worksite. Workers should be provided with appropriate protective equipment and instructions and training in protective equipment care and use. The following personal protective equipment is recommended for swine production workers when working with known or suspected flu-infected pigs:

- Uniforms or coveralls
- Rubber, polyurethane boots or disposable shoe covers
- Disposable gloves
- Safety goggles
- Disposable, lightweight head or hair covers
- Respirators
- Personal protective equipment should be laundered, disinfected or discarded at work and should never be taken home or worn outside of work areas.

Respirator Recommendations

Disposable N95 or higher NIOSH-certified filtering facepiece respirators are the minimum level of respiratory protection that should be worn by workers in contact with known or suspected flu-infected pigs. Workers must be medically cleared, must be fit tested with the respirator model that they will wear, and must be instructed in proper use and cleaning of the respirator, in accord with OSHA's Respiratory Protection standard (29 CFR 1910.134).

Cleaning and Decontamination

Commonly used disinfectants, such as quaternary ammonium compounds or 10% bleach solutions, will kill flu viruses. Cleaning chemicals can cause skin, eye, nose, throat and lung irritation. Follow manufacturer's instructions for use.

Workers should be provided with proper protective equipment when using cleaning chemicals.

Swine Farm Biosecurity Recommendations

Workers with a flu-like illness should stay home for at least 24 hours after the fever ends without the use of fever-reducing medicine. Biosecurity practices (e.g., shower-in/shower-out procedures, proper use, removal, cleaning or discarding of personal protective equipment, disinfectant foot-baths) should be enforced.

Symptoms of Flu in People

- Fever
- Cough
- Sore throat
- Runny, stuffy nose
- Body aches
- Headache
- Chills
- Fatigue
- Diarrhea
- Vomiting

Employers should refer swine production workers with flu symptoms for medical evaluation. Employers may consider establishing a referral relationship with healthcare professionals with experience in occupational health of agricultural workers.

Vaccination of Swine Production Workers

Vaccinations are the most powerful public health tool for preventing flu transmission. Vaccination of swine production workers with the seasonal flu vaccine will help prevent the spread of seasonal flu among people and from people to live swine. Employers should consider providing the seasonal flu vaccine to their workers who come in contact with pigs.

Education and Training

Workers should know the:

- Importance of good hygiene, protective equipment, biosecurity, and other practices to prevent the spread of flu from pigs to people and workers to pigs.
- Importance of the flu vaccination for workers.
- Symptoms associated with flu in humans and clinical signs of flu in pigs.
- Proper fitting, use, cleaning and disposal of personal protective equipment.

Additional Information

For more information on:

- Influenza risk, flu vaccines and infection control measures: www.cdc.gov/flu
- Influenza Surveillance in Swine- Procedures Manual, USDA Animal and Plant Health Inspection Service, July 2010: http://www.aphis.usda.gov/animal_health_dis_spec/siv_surv_manual.shtml
- Influenza: Pigs, People and Public Health. Fact Sheet from the National Pork Board, January 2004: <http://pork.org/filelibrary/Factsheets/Swine%20Health/PUBLICHEALTH%influenza04726.pdf20>
- Disinfectant information from the Environmental Protection Agency: www.epa.gov/oppad001/influenza-disinfectants.html

This fact sheet is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. This information will be made available to sensory impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For more complete information:



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