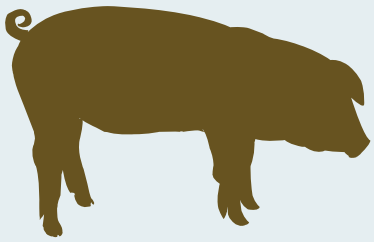
Swine Diseases By Transmission Route: **ALL ROUTES**

Diseases can be spread from animal-to-animal by five main routes of transmission.

The following tables summarize several diseases of swine and their route(s) of transmission

Many of these diseases can also affect people (zoonotic) or be introduced to the U.S. from other countries (termed "foreign animal disease" or FAD).

Prevention measures directed at stopping disease transmission can protect a wide range of diseases.



	Aerosol	Direct Contact	Fomites	Oral / Ingestion	Vector	Zoonotic	FAD
Actinobacillus pleuropneumoniae (APP)	■	■	■				
African swine fever	■	■	■	■			●
Atrophic rhinitis *(B. bronchiseptica, P. multocida)*	■						
Brucellosis (*Brucella suis*)	■	■	■	■		▲	
Campylobacteriosis *(Campylobacter coli)*		■	■	■	■	▲	
Classical swine fever	■	■	■	■			●
Clostridial disease			■	■			
Colibacillosis *(Escherichia coli)*	■	■	■	■	■	▲	
Cryptosporidiosis *(Cryptosporidium spp.)*			■	■		▲	
Cysticercosis/Taeniasis *(Taenia solium)*			■	■	■	▲	
Enzootic pneumonia *(Mycoplasma hyopneumoniae)*	■	■					
Erysipelas *(Erysipelothrix rhusiopathiae)*		■	■	■	■	▲	
Exudative dermatitis (greasy pig) *(Staphylococcus hyicus)*		■	■				
Foot and mouth disease (FMD)	■	■	■	■			●
Japanese encephalitis		■			■	▲	●
Leptospirosis *(Leptospira interrogans)*	■	■	■	■		▲	
Melioidosis *(Burkholderia pseudomallei)*	■	■	■	■		▲	●
MRSA-Methicillin-resistant *Staphylococcus aureus*)	■	■	■			▲	
Nipah virus	■	■	■	■		▲	●
Porcine circovirus		■	■	■	■		
Porcine deltacoronavirus	■		■	■			
Porcine epidemic diarrhea virus (PEDV)	■	■	■	■			
Porcine parvovirus (PPV/SMEDI)		■	■	■			
Porcine reproductive/respiratory syndrome (PRRS)	■	■	■		■		
Porcine rotavirus		■	■	■			
Pseudorabies/Aujeszky's disease	■	■	■	■			
Salmonellosis		■	■	■	■	▲	
Senecavirus A		■	■	■	■		
Streptococcosis *(Streptococcus suis)*	■	■	■		■	▲	
Swine dysentery *(Brachyspira hyodysenteriae)*		■	■	■	■		
Swine influenza	■	■	■			▲	
Swine vesicular disease	■	■	■				
Transmissible gastroenteritis (TGE)	■	■	■	■	■		

▲ **Zoonotic Disease (Z):**
Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):**
Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

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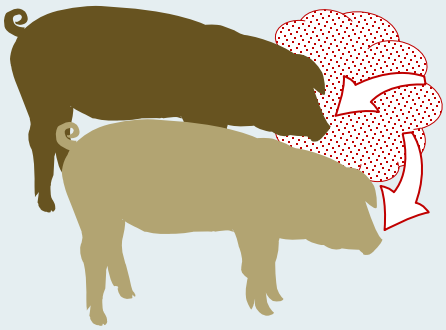
Prevention measures used to reduce a particular route of transmission can protect against many diseases.

Swine Diseases By Transmission Route: **AEROSOL**

Aerosol transmission occurs when droplets containing disease agents pass through the air and are inhaled. Most infective particles only travel in the surrounding air for short distances and require close contact.

The following diseases of swine are spread by aerosol transmission.



▲ **Zoonotic Disease (Z):** Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):** Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

	Zoonotic	FAD
Actinobacillus pleuropneumoniae (APP)		
African swine fever		●
Atrophic rhinitis *(B. bronchiseptica, P. multocida)*		
Brucellosis (*Brucella suis*)	▲	
Classical swine fever		●
Colibacillosis *(Escherichia coli)*	▲	
Enzootic pneumonia *(Mycoplasma hyopneumoniae)*		
Foot and mouth disease (FMD)		●
Leptospirosis *(Leptospira interrogans)*	▲	
Melioidosis *(Burkholderia pseudomallei)*	▲	●
MRSA-Methicillin-resistant *Staphylococcus aureus*)	▲	
Nipah virus	▲	●
Porcine deltacoronavirus		
Porcine epidemic diarrhea virus (PEDV)		
Porcine reproductive/respiratory syndrome (PRRS)		
Pseudorabies/Aujeszky's disease		
Streptococcosis *(Streptococcus suis)*	▲	
Swine influenza	▲	
Swine vesicular disease		
Transmissible gastroenteritis (TGE)		

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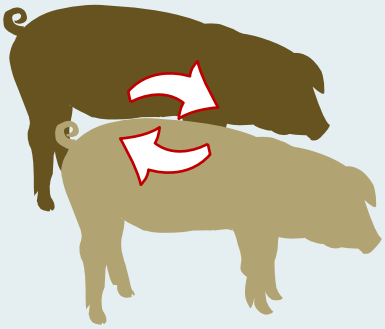
Using prevention measures to reduce aerosol transmission can protect against all of the listed diseases.

Swine Diseases By Transmission Route: **DIRECT CONTACT**

Direct contact transmission occurs when animals touch or have physical contact with the body fluids of an infected animal. Some are transferred reproductively during breeding or from the mother to offspring.

The following diseases of swine can be spread by direct contact.



▲ **Zoonotic Disease:**
Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):**
Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

	Reproductive	Zoonotic	FAD
Actinobacillus pleuropneumoniae (APP)			
African swine fever (ASF)	■		●
Brucellosis (*Brucella suis*)	■	▲	
Campylobacteriosis *(Campylobacter coli)*		▲	
Classical swine fever (CSF)	■		●
Colibacillosis *(Escherichia coli)*		▲	
Enzootic pneumonia *(Mycoplasma hyopneumoniae)*			
Erysipelas *(Erysipelothrix rhusiopathiae)*	■	▲	
Exudative dermatitis (greasy pig) *(Staphylococcus hyicus)*			
Foot and mouth disease (FMD)	■		●
Japanese encephalitis	■	▲	●
Leptospirosis *(Leptospira interrogans)*	■	▲	
Melioidosis *(Burkholderia pseudomallei)*		▲	●
Methicillin-resistant (*Staphylococcus aureus*) (MRSA)		▲	
Nipah virus		▲	●
Porcine circovirus	■		
Porcine epidemic diarrhea virus (PEDV)			
Porcine parvovirus (PPV/SMEDI)	■		
Porcine reproductive/respiratory syndrome (PRRS)	■		
Porcine rotavirus			
Pseudorabies/Aujeszky's disease	■		
Salmonellosis	■	▲	
Senecavirus A			
Streptococcosis *(Streptococcus suis)*	■	▲	
Swine dysentery *(Brachyspira hyodysenteriae)*			
Swine influenza	■	▲	
Swine vesicular disease			
Transmissible gastroenteritis (TGE)			

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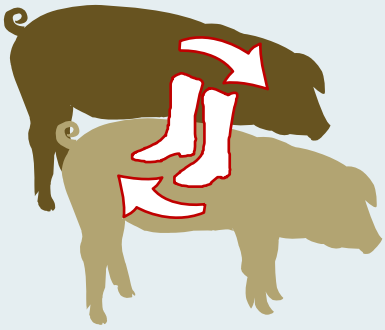
Using prevention measures to reduce direct contact transmission can protect against all of the listed diseases.

Swine Diseases By Transmission Route: **FOMITES**

Fomite transmission occurs when an animal contacts objects or surfaces contaminated by the body fluids or feces of an infected animal. Many disease-causing agents are able to persist on fomites in the environment, resulting in exposure risks.

The following diseases of swine can be spread by fomites.



▲ **Zoonotic Disease (Z):**
Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):**
Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

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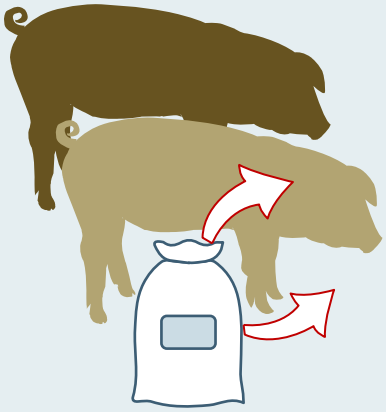
	Feed/Water Equipment	Footwear	Handling Equipment	Housing	Soil	Treatment Equipment	Water	Zoonotic	FAD
Actinobacillus pleuropneumoniae (APP)		■							
African swine fever	■	■	■			■			●
Brucellosis (*Brucella suis*)	■			■	■		■	▲	
Campylobacteriosis (*Campylobacter coli*)					■		■	▲	
Classical swine fever	■	■		■		■			●
Clostridial disease	■	■	■	■	■	■	■		
Colibacillosis (*Escherichia coli*)	■	■	■	■	■		■	▲	
Cryptosporidiosis (*Cryptosporidium spp.*)					■		■	▲	
Cysticercosis/Taeniasis (*Taenia solium*)					■		■	▲	
Erysipelas (*Erysipelothrix rhusiopathiae*)	■			■	■		■	▲	
Exudative dermatitis (greasy pig) (*Staphylococcus hyicus*)				■					
Foot and mouth disease	■								●
Leptospirosis (*Leptospira interrogans*)	■			■	■		■	▲	
Melioidosis (*Burkholderia pseudomallei*)					■		■	▲	●
MRSA-Methicillin-resistant *Staphylococcus aureus*)	■			■	■			▲	
Nipah virus	■					■	■	▲	●
Porcine circovirus	■	■	■	■	■		■		
Porcine deltacoronavirus	■	■	■	■	■		■		
Porcine epidemic diarrhea virus (PEDV)	■	■	■	■	■		■		
Porcine parvovirus (PPV/SMEDI)	■	■	■	■	■		■		
Porcine reproductive/respiratory syndrome (PRRS)	■	■	■	■	■	■			
Porcine rotavirus				■	■				
Pseudorabies/Aujeszky's disease	■			■	■		■		
Salmonellosis	■	■	■	■	■	■	■	▲	
Senecavirus A	■		■						
Streptococcosis (*Streptococcus suis*)		■	■	■	■			▲	
Swine dysentery (*Brachyspira hyodysenteriae*)	■	■	■	■	■		■		
Swine influenza	■			■			■	▲	
Swine vesicular disease			■	■					
Transmissible gastroenteritis (TGE)	■	■	■	■		■			

Using prevention measures to reduce oral transmission can protect against all of the listed diseases.

Swine Diseases By Transmission Route: **ORAL/INGESTION**

Oral transmission occurs when an animal ingests disease-causing agents. This can occur from ingestion of contaminated feed or water, or by licking or chewing on contaminated environmental objects.

The following diseases of swine spread by ingestion.



▲ **Zoonotic Disease (Z):**
Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):**
Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

	Zoonotic	FAD
African swine fever		●
Brucellosis (*Brucella suis*)	▲	
Campylobacteriosis *(Campylobacter coli)*	▲	
Classical swine fever		●
Clostridial disease		
Colibacillosis *(Escherichia coli)*	▲	
Cryptosporidiosis *(Cryptosporidium spp.)*	▲	
Cysticercosis/Taeniasis *(Taenia solium)*	▲	
Erysipelas *(Erysipelothrix rhusiopathiae)*	▲	
Foot and mouth disease		●
Leptospirosis *(Leptospira interrogans)*	▲	
Melioidosis *(Burkholderia pseudomallei)*	▲	●
Nipah virus	▲	●
Porcine circovirus		
Porcine deltacoronavirus		
Porcine epidemic diarrhea virus (PEDV)		
Porcine parvovirus (PPV/SMEDI)		
Porcine rotavirus		
Pseudorabies/Aujeszky's disease		
Salmonellosis	▲	
Senecavirus A		
Swine dysentery *(Brachyspira hyodysenteriae)*		
Transmissible gastroenteritis (TGE)		

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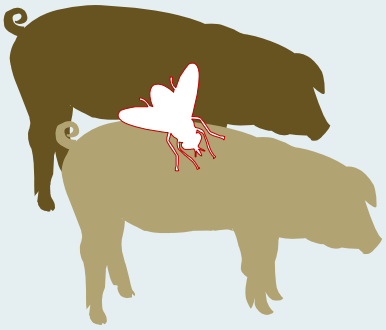
Using prevention measures to reduce oral transmission can protect against all of the listed diseases.

Swine Diseases By Transmission Route: **VECTORS**

Vector transmission occurs when a living organism moves a disease-causing agent from an infected animal to another. Insects are common disease-carrying vectors.

The following diseases of swine can be spread by vectors.



Disease	Vector type	Zoonotic	FAD
Campylobacteriosis *(Campylobacter coli)*	flies, cockroaches	▲	
Colibacillosis *(Escherichia coli)*	flies	▲	
Japanese encephalitis	mosquitoes	▲	●
Porcine circovirus	flies		
Porcine reproductive/respiratory syndrome (PRRS)	flies, mosquitoes		
Salmonellosis	flies	▲	
Senecavirus A	flies		
Streptococcosis *(Streptococcus suis)*	flies	▲	
Swine dysentery *(Brachyspira hyodysenteriae)*	flies		
Transmissible gastroenteritis (TGE)	flies		

▲ **Zoonotic Disease (Z):**
Disease that can be transmitted between animals and humans.

● **Foreign Animal Disease (FAD):**
Never found or previously eradicated within the U.S. animal population. The disease is reportable to State and Federal animal health authorities.

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Using prevention measures to reduce vector transmission can protect against all of the listed diseases.