
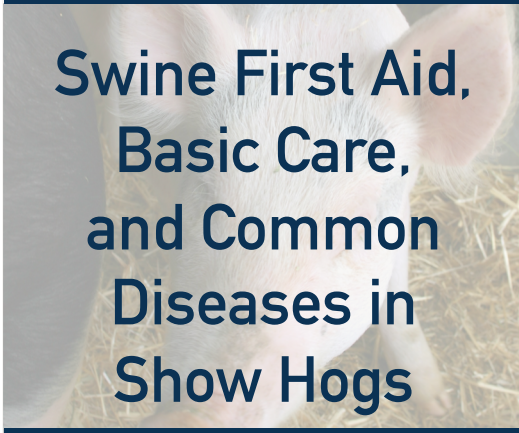



# Utah State University Swine First Aid, Basic Care, and Common Diseases in Show Hogs



**Instructions:** Print this page on cardstock, and laminate it to ensure resilience over time and to allow a dry erase marker to be used to indicate how much of each supply you have in stock. Cut out each card, and punch a hole in the upper left-hand corner and attach with a loose-leaf ring. Keep with your first-aid kit, in a location near your cattle.





## Swine First Aid, Basic Care, and Common Diseases in Show Hogs

**EXTENSION**   
**UtahStateUniversity**

 **EXTENSION**   
**UtahStateUniversity**



### Primary Vet Information

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email: \_\_\_\_\_

### Backup Vet Information

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email: \_\_\_\_\_

2

 **EXTENSION**   
**UtahStateUniversity**

### Emergency Contact 1

Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_



### Emergency Contact 2

Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

### Emergency Contact 3

Name: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

3

 **EXTENSION**   
**UtahStateUniversity**

### First Aid On Hand

- \_\_\_ Adhesive tape
- \_\_\_ Antiseptic scrub
- \_\_\_ Disposable latex gloves
- \_\_\_ Disposable razor
- \_\_\_ Duct tape
- \_\_\_ Epsom salt
- \_\_\_ Flash light
- \_\_\_ Gauze dressing pads
- \_\_\_ Hoof dressing
- \_\_\_ Isopropyl (rubbing) alcohol
- \_\_\_ Lubricant for the thermometer
- \_\_\_ Nonsteroidal eye ointment

4



- \_\_\_ Oral syringe
- \_\_\_ Pocket knife
- \_\_\_ Rectal thermometer
- \_\_\_ Roll gauze
- \_\_\_ Safety scissors
- \_\_\_ Scissors
- \_\_\_ Tweezers
- \_\_\_ Udder ointment
- \_\_\_ Vet wrap
- \_\_\_ Wound ointment/spray
- \_\_\_ Wire cutters



**CHECKING VITALS:**

**Temperature** (degrees in F)

Adult 102.5°

How to take the temperature:

- Put animal in a chute/restraint where you can guarantee that the animal will not be able to harm you.
- Lubricate the end of the thermometer.
- Lift the tail and gently insert the thermometer into the animals rectum. Make sure the tip of the thermometer rests against the rectal wall (i.e. make sure it is not inserted into dung).



- Hold the end of the thermometer to stop it disappearing up the rectum.
- Electronic thermometers will “beep” when an accurate reading is obtained.



**Pulse Rate**

(beats per minute)

Adult- 60 to 100

How and where to take pulse:

1. Locate an artery (the femoral artery is most common in pigs, but it is very rarely used and is most difficult) and apply gentle pressure against it with your fingers.
  2. Count the number of pulses for 1 full minute. Or for 30 seconds and multiply the number by two. Or for 15 seconds and multiply by 4.
- \*\*Auscultation (listening to the heart with a stethoscope) is more commonly used and usually more accurate.



### Respiration

(breaths per minute)

Adults- 8-18

- Watch flank of animal for inhale and exhale.
- Determine if your animal's respiration is normal or abnormal.
- Respiration can be increased by recent exercise, excitement, stress, hot weather or stuffy buildings.
- Respiration can be accelerated if the animal is in pain or has a fever.



### Prevention of Disease through Management Vaccination Programs

#### Overview

Protect pigs against disease by minimizing their exposure to strange pigs, reducing stress by providing nutritious feed, clean water, and comfortable housing, and by boosting immunity through vaccination and regular de-worming. Vaccinations should be given at multiple time points in an animal's life to decrease the probability of infection later in the production process.



For example, animals should be vaccinated prior to weaning as this is a stressful time in their lives and can suppress the immune system. Furthermore, animals remaining in the herd should be vaccinated annually and animals transitioning to a new phase or environment of the swine production system should be vaccinated to prevent becoming infected themselves or infecting new animals that they might be exposed to.



Although there are multiple vaccinations available on the market to prevent disease it is always a good idea to consult a veterinarian on the best type of vaccine for your herd/area and how to properly administer the vaccine so that it will be effective at preventing disease.



### **Common Diseases and Disorders in Swine Overview**

Although prevention and management are the best ways to decrease the probability of infection in your animals, there are still instances where animals become infected. This may be due to exposure to a strain of the disease that was not covered in the vaccine, genetic predisposition or just plain bad luck.



As such, the following information is necessary to be able to identify these diseases early and obtain the proper treatment for the animal so that the infection does not progress and create a much larger issue.



### **Erysipelas Overview**

Erysipelas, sometimes called Diamond Skin Disease, is an infectious disease caused by the bacterium *Erysipelothrix rhusiopathiae*. The bacteria is present in up to half of the swine in the U.S. and is among the leading causes of carcass condemnations at slaughter facilities. The disease is spread by nose to nose contact, and in feces from infected swine or wild birds. Erysipelas is rarely seen in pigs younger than 8 weeks of age because they are protected by antibodies in the sow's colostrum.



It is most often seen in growing pigs near market weight, and young breeding stock. Erysipelas can affect the pig's joints, leading to chronic arthritis.



### Signs and Symptoms

- Pigs may die suddenly without showing any symptoms (rare).
- Pigs have a high fever.
- May develop diamond-shaped welts or rash on their back.
- Pigs sit on haunches like a dog and are reluctant to move because of joint pain.
- May shift weight from foot to foot while standing because of joint pain.

17



### Prevention

- When buying pigs, ask the breeder if they have been vaccinated against Erysipelas.
- Avoid mixing pigs from different sources.
- Keep pens clean.
- Minimize stress by providing comfortable living conditions, clean drinking water, etc.
- Vaccinate pigs that have not been vaccinated, following label directions.

18



- Erysipelas vaccines often include protection against Rhinitis and Mycoplasma, and are administered intramuscularly or subcutaneously.
- Oral Erysipelas vaccine is administered in drinking water, and provides 4 months of protection.

19



### Treatment

When you notice that your animal has any of the above symptoms, contact your vet immediately to determine the cause so a treatment plan can be started.

Likely a veterinarian will prescribe penicillin, *Erysipelothrix rhusiopathiae* is very sensitive to penicillin. Treat affected pigs with injectable penicillin at 12-hour intervals for 4 consecutive days, or administer two doses of long-lasting penicillin 48 hours apart. Follow label directions and note pre-slaughter withdrawal times when using any medication or antibiotic.

20



It is much easier to prevent Erysipelas by vaccinating small pigs than to give multiple antibiotic injections to large pigs.



### **Atrophic Rhinitis**

#### **Overview**

Atrophic Rhinitis, commonly called Rhinitis, is caused by Bordetella and Pasteurella bacteria that are present in most swine herds. Toxins from moldy bedding and ammonia from wet bedding are thought to predispose pigs to Rhinitis. The disease can affect pigs as young as 1 week old, but is more common on newly-weaned pigs.



Rhinitis is usually not fatal, but pigs gain weight more slowly while the illness runs its course. Some infected pigs develop a permanently distorted, crooked snout that hinders eating and drinking and is unsightly in the show ring.



#### **Signs and Symptoms**

- Sneezing, snorting, and nasal discharge.
- Bloody nose (occasional).
- Watery eyes, resulting in a patch of dirty hair below the corner of each eye.
- Crooked snout.



### Treatment

None. The goal should be to prevent pigs from getting the disease by vaccinating and providing a well-ventilated environment.

25



### Sunburn

#### Overview

White pigs, or pigs with areas of white hair, may suffer sunburn. This often occurs when young pigs are moved out of the nursery into a sunlit pen for the first time, or after pigs have been washed and/or clipped in preparation for showing. While seldom fatal, sunburn is very painful and can restrict a pig's movement. Scabs or peeling skin following a sunburn are unsightly in the show ring. Pregnant sows may abort if severely sunburned.

26



### Signs and Symptoms

- Red or pink skin.
- Pigs squeal in pain when touched
- Rear legs of pigs collapse; animals fall belly-down on the ground with rear legs splayed out behind.
- Scabs and oozing sores develop on affected areas.
- Parallel lines of scabs or sores running crosswise on the loin are common after sunburn.

27



### Prevention

- Red or black pigmented pigs are less likely than white pigs to suffer sunburn
- Provide adequate shade for pigs.
- Provide complete shade after pigs have been washed or clipped, OR
- Apply sunscreen or sunblock to pigs after each washing and clipping, making sure to cover the back, ears and tail.
- Wash pigs in the evening.
- Postpone clipping until just before loading the animals for the show.

28



- A mud wallow can provide protection, but is not recommended for show pigs since muddy, stained pigs are difficult to clean and fit for exhibition.



### Treatment

Aloe Vera is sometimes used, but avoid medicated human sunburn remedies since they are not registered for use in swine, and may show up if a drug test is performed. It is best to anticipate situations that may lead to sunburn and take steps to prevent it.



### Scours

#### Overview

The stool of a normal pig should be firm and well formed. When a normal show pig is on free-choice feed and water, the stool tends to loosen to the consistency of a cow patty as feed consumption increases. When feces are totally liquid with no solid form, diarrhea is occurring. A pig with diarrhea caused by infectious agents and/or parasites usually has a reduced appetite or is anorexic, but is still drinking. Weight loss accompanies diarrheal disease and is usually obvious due to regularly monitoring them for weight gain.



### Signs and Symptoms

There are many causes of scours in show pigs, but a few are:

Dietary causes- Nutritional causes are relatively easy to detect and correct. Show pigs are typically fed high protein rations to develop maximum muscling. Overfeeding protein can, in itself, cause loose stools or diarrhea. If a pig is growing well but has a chronically loose stool, reduce the protein and/or increase fiber in the diet. If the stool does not firm up, there are probably other causes of diarrhea.





Parasitic Causes- Parasites will be covered later in the booklet.

Bacterial causes- Swine dysentery or “bloody dysentery,” Salmonella typhimurium, salmonella choleraesuis are all common bacterial causes of scours in show hogs. All require treatment from a veterinarian.



### **Treatment**

Prevention is the best way to avoid scours with your show hog, a few ways to prevent include, but are not limited to:

- Know who you are buying your hog from.
- Try to buy directly from the farm to ensure that the animal came from a clean, healthy environment.
- Keep pigs from different farms separate for 60 days.
- Do not over feed proteins or fats.
- Routinely deworm.



As soon as the pig develops diarrhea, the cause or causes need to be determined. Consult a veterinarian to diagnose infectious and/or parasite-caused diarrheal disease because death is often a result of undiagnosed, chronic diarrheal disease in show pigs.



### **Internal Parasites**

#### **Round worms**

#### **Overview**

Very common

Can reach lengths of 6-12 inches, and are stout, pinkish worms

Eggs become infective after being outside the pig for 1 month. When another pig swallows them, they hatch in the stomach or small intestine. The tiny larva that emerges penetrates the gut wall and is carried to the liver through the bloodstream.



In the liver, larvae migrate for one-half to one week and then move through the bloodstream to the lungs. From there, the larvae are coughed up, swallowed and returned to the small intestine, where they grow and mature within two months.

Infective eggs can remain in soil for 10 or more years



### Signs and Symptoms

- Often observe a cough as one of the first clinical signs
- Inflammation of the liver
- An allergic reaction occurs in the lungs as larvae move through the air spaces- causing the pig to cough
- The lung tissue becomes thick and wet, leading to heavy breathing and "thumps." This process is made worse by dust, ammonia and bacteria
- Colic or gut pain



- An impaction and even tearing of the gut may occur
- Set back in weight gain and appear unthrifty
- Feed conversion may be depressed



### Treatment

Your veterinarian can diagnose this infection by taking fecal samples for microscopic examination.

Routinely deworm pigs to prevent infection, and to kill any living round worms.



## Whipworms

### Overview

- Are 2-2.5 inches long
- Infect the large intestine and cecum
- Common in 4-H pigs
- Infective eggs survive in the environment for 10-20 years

41



## Signs and Symptoms

- Can see a bloody scour
- Depressed growth
- Poor feed conversion

42



## Treatment

Your veterinarian can diagnose this infection by taking fecal samples for microscopic examination.

Not all dewormers treat whipworms well, be sure to discuss with your veterinarian what treatment method to use.

43



There are several other types of internal parasites. If you suspect that your hog could have parasites, contact your veterinarian to set up a deworming program. A few easy ways to prevent parasites are: practice good sanitation, maintain good nutrition in your pig, keep facilities well-cleaned and traffic minimized.

44



## External Parasites

### Lice

#### Overview

Lice are found on all parts of the body, but particularly in the folds of the skin around the neck, jowl, flanks, and on the inner surfaces of the legs. They often shelter inside the ears, where they are sometimes seen in “nests.” Lice are greyish-brown in color with black markings. The females are about 6 mm long and the males slightly smaller.

45



### Signs and Symptoms

- Skin irritation and rubbing
- Can see lice visually

### Treatment

Easily treatable with Ivermectin. Be sure to follow the label directions. Be sure to honor withdrawal periods.

46



### Mange

#### Overview

Pigs with mange have small red bumps that are very itchy caused by the Sarcoptic Mange Mite. The mite is about 0.5 mm in length and only visible to the naked eye when on a black background. The mites are spread by direct body contact or if pigs are moved into quarters recently infested. Mites only survive away from the host for a short period of time. Mites burrow under the skin and lay eggs, causing the skin to be very irritated and initiates severe scratching and rubbing. It will continue to get more severe as time goes on.

47



### Signs and Symptoms

- The first site that is visible is usually in the ears, where lesions will form, and then they will spread over the entire body.
- Decreased rate of growth.
- Inefficient use of feed.

48



### Treatment

Prevention should first start with sows before farrowing. Treating dams with external acaricide sprays or with an injectable avermectin a few days before farrowing will reduce the risk of transmission to piglets at birth. It might be beneficial to treat growing pigs at eight to ten weeks of age. If you notice signs of mites, contact your local veterinarian to discuss the best eradication program for you.



### Ulcers

#### Overview

Refers to the destruction of parts or all of the pars esophagea (non-glandular stomach) with the formation of single or multiple bleeding ulcers. The lesions occur in pigs from weaning onward. Signs are only noticed in pigs 8 weeks of age or older, and are more common in pigs weighing 120 lbs. to market weight.



### Signs and Symptoms

- Black tarry feces, anemia, an unhealthy pale appearance, anorexia, grinding of the teeth, or un-thriftiness.



### Treatment

Prevention or reduction of the following risk factors will reduce the risk for ulcers dramatically:

- The feeding of finely ground feed.
- Pelleted rations, perhaps because of the finely ground feed used in making pellets.
- Concentrated, nutrient dense diets that are low in fiber.



- Stress factors (e.g. anxiety, fear, pain, fatigue, crowding, fasting, prolonged transportation, social stress from mixing with unfamiliar pigs, poor air quality, etc.).
- Greater occurrence in hot, summer months may be related to inconsistent feeding behavior or stress associated with access to water.
- Out of feed events. This may be a result of inconsistent feed availability from plugged or empty feeding systems or be the result of disease-induced anorexia.



- Greater occurrence reported in barrows (versus gilts) and in high-lean genotypes.
- Feeding rations with copper as a growth promoter, perhaps without adequate zinc.
- Ad libitum feeding of cheese whey or skimmed milk has resulted in increased prevalence.
- Diets high in wheat or cornstarch, compared to barley or milo, and/or low in protein.
- High levels of unsaturated fats in the diet, often with inadequate vitamin E.



If a pig is suspected of having ulcers, it should be separated from the herd, and you should contact your veterinarian immediately. The veterinarian will prescribe the necessary medication along with dosage and the number of days to administer.



### Lameness

#### Overview

Four common causes of lameness are: infectious arthritis, nutritional deficiencies or imbalances, trauma or injury and genetics.



### Signs and Symptoms

Most of the arthritis that occurs is caused by bacterial infections. Labored breathing, temperature of 104°-107°, inflamed testicles, lameness, “puffiness” in hocks, picking up infected leg, larger pigs might be unable to stand, are all signs of arthritis.

Nutritional lameness is due to calcium-phosphorus imbalances or deficiencies, also known as Rickets. Signs include: deformity, and bending of bones in younger pigs, and fractures and posterior paralysis in older pigs.

57



Lameness due to injuries is common, especially when pigs are in confinement. Can be caused by fighting at the feeder, slipping during transport, extreme exercise, etc. If not addressed, can become chronic.

Genetics also plays a role in lameness, if the animal is not structurally sound as a small piglet, chance of the problem worsening with age and weight is extremely high.

58



### Treatment

When you notice that your animal is favoring a leg or refuses to move due to pain, contact your veterinarian immediately to determine the cause so that a treatment plan can be started.

59



### References

Hogg, A. (n.d.). Lameness in Swine; Genetic, Skin Diseases. Animal Health,294-297. Retrieved March 29, 2018, from <https://naldc.nal.usda.gov/download/IND85005519/PDF>

Lane, A., & Coffey, P. (2006). Vital Signs and Gestation. Trinity County Publication,4H12. Retrieved March 26, 2018, from <http://webcache.googleusercontent.com/search?q=cache:qx53728u-m0J:cetrinity.ucanr.edu/files/107462.doc>

Iowa State University. (2018). Ulceration of the Pars Oesophagea (Gastric Ulcers; Ulcers). Veterinary Diagnostic and Production Animal Medicine. Retrieved March 29, 2018, from <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/gastric-ulcers>.

60



Iowa State University. (2018). Mange (Sarcoptic Mange). Veterinary Diagnostic and Production Animal Medicine. Retrieved March 29, 2018, from <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/mange>

Corwin, R. M., & Tubbs, R. C. (2018). Common Internal Parasites of Swine. University of Missouri Extension. Retrieved March 29, 2018, from <https://extension2.missouri.edu/G2430#large>

Lawhorn, B. (n.d.). Diarrheal Disease in Show Swine. Texas Agricultural Extension Services. Retrieved March 29, 2018, from [https://showpig.com/EDUCATION/Diarrhea in Swine.pdf](https://showpig.com/EDUCATION/Diarrhea%20in%20Swine.pdf).

Bender, J. & Madson, D., DVM. (2009). What's the Real Cost of Swine Erysipelas? National Hog Farmer Magazine. Retrieved April 7, 2018, from <http://www.nationalhogfarmer.com/northamericanpreview/real-cost-of-swine-erysipelas>



Opressnig, T. (2018). Swine Erysipelas. Merck Veterinary Manual. Retrieved April 7, 2018, from <https://www.merckvetmanual.com/generalized-conditions/erysipelothrix-rhusiopathiae-infection/swine-erysipelas>

Iowa State University. (2018). Atrophic Rhinitis (Progressive Atrophic Rhinitis). Veterinary Diagnostic and Production Animal Medicine. Retrieved April 8, 2018, from <https://vetmed.iastate.edu/vdpam/FSVD/swine/index-diseases/atrophic-rhinitis>



Created by Karah Nay, Dennis Worwood and Kerry Rood, DVM

August 2018

Utah State University is an affirmative action/ equal opportunity institution.