

# Gastric Ulcers in Swine

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**G**astric ulceration in swine occurs when an area in the stomach lining becomes roughened and eventually erodes; as the erosion worsens, bleeding and perforation can occur. The most common location for gastric ulcers is where the esophagus enters the stomach. Gastric ulceration is an extremely common secondary complication of any disease or condition that causes swine to partially or completely go off feed for 2 to 3 days or more. It seems to occur more frequently in the early fall, when cooler temperatures promote increased feed consumption that might irritate a pre-existing, minor ulceration.

## Causes

Gastric ulceration is associated with the stress of rapid growth and gastric hyperacidity. It is also associated with:

- ▶ feed ground too fine
- ▶ a sudden change in feed consistency (pelleted or crumbles to ground feed or vice versa)
- ▶ vitamin E/selenium deficiency
- ▶ excess whey in the diet
- ▶ copper toxicity (from using excess copper sulfate [more than 250 ppm] to promote growth in pigs up to 100 pounds)
- ▶ roundworm intestinal parasitism

*Helicobacter pylori*, swine variant, is a bacteria commonly found in the mucous lining of the stomach of pigs and is thought to be the infectious cause of gastric ulceration.

## Clinical Signs

Rapidly growing swine are at highest risk for gastric ulceration, but swine of any age (usually after weaning) are susceptible. Onset of ulceration can be sudden or gradual and related anorexia can be partial or complete. Affected swine typically exhibit vomiting and dehydration with little to no feces (feces seen may be dark). Though treated swine may heal, recurrence of ulcers is common. In untreated swine, the disease may last a week or more. The severely affected pig may be found dead from internal gastric hemorrhage or peritonitis and pleuritis caused by ulcer perforation. Light-colored swine with gastric bleeding may appear pale, especially in the mucous membranes of the eye, mouth or vulva; the term “Bleach Out” syndrome has been used to describe such pigs.



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## Diagnosis

Gastric ulceration should be suspected as a primary or secondary disease in swine that display typical clinical signs. For example, a show pig that has obvious pneumonia and is off feed is at high risk for having or developing gastric ulceration. A veterinarian can quickly perform a blood test to determine if the pig is anemic. A veterinarian should perform a necropsy on any pig that dies from suspected gastric ulceration. The black, digested blood inside the ulcerated stomach or the massive abdominal and chest cavity inflammation associated with a perforated ulcer are usually obvious to a professional.

## Treatment

Veterinarians treat gastric ulceration with drugs that suppress the production of stomach acid, drugs that coat the stomach lining, and injectable antibiotics. Drugs such as aspirin or more potent non-steroidal anti-inflammatory drugs may worsen a pre-

existing ulcer and should not be used. Since affected swine are usually off feed but still drinking, use a slurry-type feed with ingredients such as oatmeal, fruit, melons, yogurt, etc., to re-establish food intake.

## Prevention

It is important to correct conditions that may cause primary or secondary gastric ulceration, both for the convalescing pig(s) and other swine in the herd. When show swine go off feed for any reason, immediately try to re-establish feed intake with the slurry feed method. When animals start eating again, gradually return to the original diet. The extremely rapid growth rate of today's show swine, coupled with free choice feed intake, seems to predispose these swine to gastric ulceration. Average daily gain and the total amount of feed intake is controlled by genetics. Therefore, moderately reducing the daily intake of a nutrient-adequate ration could help prevent gastric ulceration.

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