

ACBA: Health

## **PREGNANCY TOXEMIA IN CAVIES**

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Pregnancy Toxemia is a metabolic disorder that occurs in sows usually during the last 7-10 days of gestation and up through the first week of lactation. The clinical signs include lack of or severely decreased appetite, depression, and a hunched, ruffed appearance. The sow may also salivate, have droopy sunken eyes and muscle spasms. The predisposing factors of the condition are many, and not all have been identified. Obesity, stress, hot weather, temporary anorexia (lack of appetite), food/water restriction, improper diet, and large litters all contribute to the disorder. Unfortunately signs occur suddenly, treatment is rarely effective, and death is the most common outcome.

The mechanism behind Pregnancy Toxemia develops into what is called a vicious cycle. Sows late in gestation survive on a precarious energy balance. Quite often, due to obesity, large litters, or improper diet, they can't consume enough to meet their energy needs. As the blood sugar level drops to below normal, the body starts breaking down its fat reserves to supply the lacking energy. The liver becomes overloaded trying to metabolize the fat and the by products of fat breakdown (ketones). The ketones act as a poison to the body, making the sow feel worse, decreasing her appetite, and thus decreasing her energy intake even more. Once the vicious cycle has started, it is very difficult to break it. By the time the condition is evident, the body's chemical changes and internal organ damage are often irreversible.

Treatment options are very few. If the condition is identified early, force feeding with high calorie or high glucose solutions may stimulate appetite and reverse the cascade. Usually, continuous oral supplementation is required to prevent a relapse. In the later stages of toxemia, treatment involves subcutaneous fluid therapy and possibly a steroid injection. Success at this point is very rare.

Prevention of this life threatening disorder can be accomplished with good sound husbandry practices and a certain measure of luck. Keep the sow from becoming obese due to overfeeding or lack of exercise prior to breeding. Provide a complete nutritious diet and extra vitamin C. Increasing the carbohydrate content of the diet and adding a source of glucose to the water during the last 2-3 weeks of pregnancy should increase the energy level of the diet. Calcium supplementation is also sometimes helpful in preventing ketosis in mildly hypocalcemic sows and can be done during the last two weeks of gestation and the first week of lactation. Minimize stress whenever possible. Limit activities and loud noise around the sow's cage, and restrict handling of heavily pregnant animals. Always make sure food and water is readily available to encourage eating. Add to all of these precautions a pinch of good luck because a good, conscientious breeder may do everything just right and still have a toxemic sow now and then.

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