



Mycoplasmal Pneumonia

Alternate Names: Porcine pneumonia, porcine enzootic pneumonia.

Species Affected: Pigs.

What causes mycoplasmal pneumonia? *Mycoplasma hyopneumoniae*, a small type of bacteria that affects the respiratory system of pigs. *M. hyopneumoniae* only survives a short time in the environment and it's easily destroyed by common disinfectants. These bacteria are common worldwide, and most pig herds are infected with it.

How is mycoplasmal pneumonia transmitted? By direct contact with the nasal fluids or respiratory droplets of infected animals, or indirectly, via contaminated environment, equipment, and tools.

What are the clinical signs of mycoplasmal pneumonia? Pigs of all ages can be affected, and pigs are commonly infected early in life. In pig herds with established *M. hyopneumoniae* (i.e. "endemically infected") clinical signs are generally mild and many animals look healthy. The most common sign of mycoplasmal pneumonia is a lingering dry cough, particularly when animals are disturbed. Reduced growth rate is common (pigs take longer to reach market weight). The disease is more severe when it's first introduced into Mycoplasma-free herds, and when pigs go through stress periods (e.g. weaning, group mixing, sick with other diseases) and presents with mild fever, difficulty breathing, thumping and a rough hair coat.

What are the consequences of mycoplasmal pneumonia? Economic losses due to longer times to reach market weight, cost of treatments, and condemnation because of lung damage at slaughter. Infected pigs are carriers of *M. hyopneumoniae* in their lungs. Mortality associated with mycoplasmal pneumonia is generally low.

How is mycoplasmal pneumonia detected? Based on clinical signs, herd history, postmortem (“after death”) findings such as lung damage, and laboratory testing. Histopathology (observation of tissues under a microscope), and PCR (Polymerase Chain Reaction, a molecular test to detect Mycoplasma genetic material) on lung samples, nose swabs and respiratory fluids are used for confirmation.

How is mycoplasmal pneumonia prevented? Good husbandry practices (e.g., “all in/all out” herds in which groups of pigs of the same age are kept together from farrowing until market without mixing with other pigs) reduce the severity of disease. Good ventilation, nutrition and management reduce stress on the herd and bouts of disease. Cleaning and disinfection of pens, tools, equipment, and footwear prevent further spread of *M. hyopneumoniae*. Vaccination reduces the severity of disease but doesn’t prevent infection. Mycoplasma-negative herds can be established using Mycoplasma-negative breeding stock and following strict disease control programs.

How can mycoplasmal pneumonia be treated? Treatment with antimicrobials (antibiotics) help reduce the severity of signs and prevent secondary bacterial infections.

Is mycoplasmal disease zoonotic (transmitted from animals to humans)? No

References:

- Pieters, M. G. (2021, December 15). *Mycoplasma Pneumonia in Pigs*. Merck Veterinary Manual. <https://www.merckvetmanual.com/respiratory-system/respiratory-diseases-of-pigs/mycoplasmal-pneumonia-in-pigs?query=mycoplasma%20hyopneumoniae>
- *The disease: enzootic pneumonia caused by Mycoplasma hyopneumoniae*. (n.d.). Boehringer Ingelheim. Retrieved January 10, 2022, from https://www.bi-vetmedica.com/species/swine/diseases/mycoplasma_hyopneumoniae.html