Classical swine fever

General Disease Information Sheets

What is Classical swine fever?

Classical swine fever (CSF), also known as hog cholera, is a contagious viral disease of domestic and wild swine. It is caused by a virus of the genus *Pestivirus* of the family *Flaviviridae*, which is closely related to the viruses that cause bovine viral diarrhoea in cattle and border disease in sheep. There is only one serotype of CSF virus (CSFV). CSF is a disease listed by the OIE World Organisation for Animal Health (OIE) *Terrestrial Animal Health Code* and must be reported to the OIE (OIE *Terrestrial Animal Health Code*).

Where is the disease found?

CSF is found in Central and South America, Europe, and Asia and parts of Africa. North America, Australia and New Zealand are currently free of the disease. In the 1990's large CSF outbreaks occurred in The Netherlands (1997), Germany (1993-2000), Belgium (1990, 1993, 1994) and Italy (1995, 1996, 1997).

How is the disease transmitted and spread?

The most common method of transmission is through direct contact between healthy swine and those infected with CSF virus. The virus is shed in saliva, nasal secretions, urine, and feces. Contact with contaminated vehicles, pens, feed, or clothing may spread the disease. Animals that are chronic carriers of the disease (persistently infected) may show no clinical signs of illness but may shed the virus in their feces. Offspring of infected sows can become infected in the uterus, and can shed the virus for months.

CSF virus can survive in pork and processed pork products for months when meat is refrigerated and for years when it is frozen. Pigs can become infected by eating CSF-infected pork meat or products.

It has been proven that in parts of Europe, the wild boar population may play a role in the epidemiology of the disease.

The disease has been spread through legal and illegal transport of animals, and by feeding swill containing infective tissues to pigs.

What are the public health risks?

Humans are not affected by this virus. Swine are the only species known to be susceptible.

What are the clinical signs?

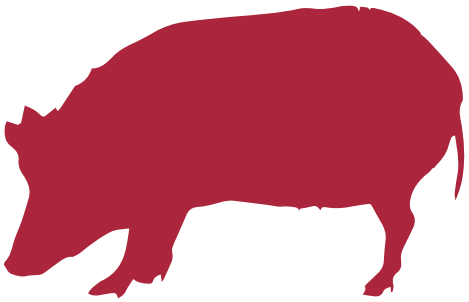
The disease has acute and chronic forms, and can range from severe, with high mortality, to mild or even unapparent.

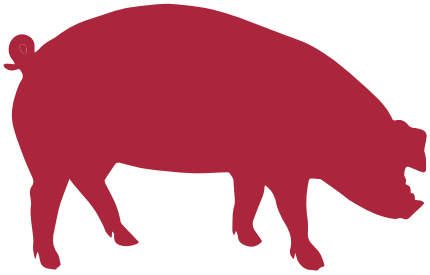
In the acute form of the disease, in all age groups, there is fever, huddling of sick animals, loss of appetite, dullness, weakness, conjunctivitis, constipation followed by diarrhoea, and an unsteady gait. Several days after the onset of clinical signs, the ears, abdomen and inner thighs may show a purple discoloration. Animals with acute disease die within 1-2 weeks. Severe cases of the disease appear very similar to African swine fever.

With low virulence strains, the only expression may be poor reproductive performance and the birth of piglets with neurologic defects such as congenital tremor.

How is the disease diagnosed?

Dado que los signos clínicos no son exclusivos de la Because the clinical signs are not exclusive to CSF, and vary widely, laboratory tests are required to detect antibodies or the virus itself. The OIE *Manual of Diagnostic Tests and Vaccines* describes the testing.





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What is being done to prevent or control this disease?

Classical Swine Fever is a disease listed by the OIE requiring that all occurrences be reported. Treatment is not attempted. In areas where the disease is endemic, vaccination can prevent the spread of the disease. Vaccines used should be produced in accordance with the OIE standards for vaccine production (OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*). As the disease is brought under control, vaccination ceases, with continued surveillance. The OIE *Terrestrial Animal Health Code* defines the requirements for a country or a zone to be considered free of the disease.

In disease-free areas, a stamping out policy is applied consisting of early detection, movement control, proper disposal of carcasses, and cleaning and disinfection. This policy has led to the elimination of CSF from North America, and much of Western Europe.

More Information?

References:

1. OIE *Terrestrial Animal Health Code:*
   www.oie.int/en/international-standard-setting/terrestrial-code/access-online/

2. OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animal:*
   www.oie.int/en/international-standard-setting/terrestrial-manual/access-online/

3. OIE Technical Disease Card:
   www.oie.int/en/animal-health-in-the-world/technical-disease-cards/

4. The Center for Food Security and Public Health, Iowa State University
   www.cfsph.iastate.edu/

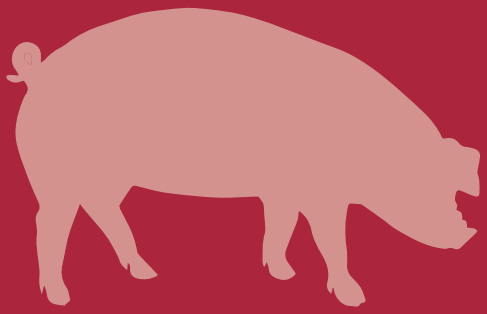
5. Merck Veterinary Manual:
   www.merckvetmanual.com/mvm/index.jsp?cfile=htm/bc/toc_50000.htm

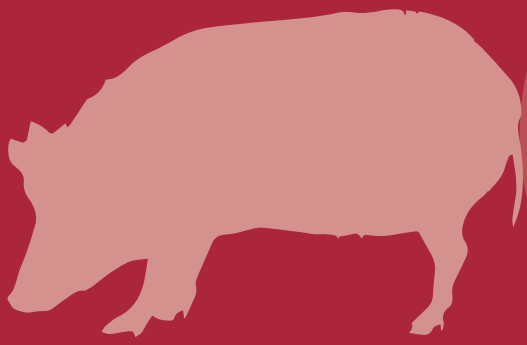
6. *Atlas of Transboundary Animal Diseases Animales Transfronterizas*
   P. Fernandez, W. White; Ed.: 2011

Ask our experts:

List of Reference Laboratories:
www.oie.int/en/our-scientific-expertise/reference-laboratories/list-of-laboratories/

List of Collaborating Centres:
www.oie.int/en/our-scientific-expertise/collaborating-centres/list-of-centres/





Key Facts

- **Classical Swine Fever was first detected in the United States in the Nineteenth Century.**
- **An outbreak in the Netherlands in 1997 led to the destruction of 11 million pigs and cost US$ 2.3 billion.**
- **OIE standards for surveillance as applied have helped eradicate CSF from North America and much of Western Europe.**

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