

DPI Primefact

Brucellosis (Brucella suis) in dogs

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Animal Biosecurity, NSW DPI

Important user information

- Infected dogs may potentially spread the infection to humans and other animals.
- Infected dogs should be euthanised or treated with antibiotics AND desexed – there are no treatments that guarantee to cure infection in dogs.
- All other dogs in contact with the infected dog should be tested and considered infectious until negative.
- People who have been in contact with potentially infected animals should seek prompt medical advice.

Introduction

Brucellosis is a disease caused by infection with a type of bacteria (Brucella). This disease is common in many parts of the world, but it is rare in Australia. Brucella bacteria infect a range of animals.

Brucella suis (*B. suis*) usually infects pigs. *Brucella suis* infection is widespread in the feral pig population in Queensland and the northern half of NSW. However, cases in dogs have been reported across NSW, including more southern parts of the state.

Brucella suis can be transmitted to people from animals. Further information on risk to humans can be found at NSW Health.

How do dogs become infected?

Brucellosis (*Brucella suis*) has been detected in dogs that have been pig-hunting and dogs that have been fed raw feral pig meat.

Dogs may be infected through contact with an infected dog or its body fluids – for example when bred/mated and at the time of birth.

Figure 1: Pig hunting dogs on the back of a ute



Protecting your dogs

- Do not feed dogs (or other domestic animals) raw feral pig meat, bones, blood, offal, testicles or other reproductive organs.
- Do not breed from dogs suspected or known to be infected with *Brucella suis*.
- Practice safe pig hunting and do not allow dogs to play with or feed on animal carcasses.
- Wash dogs after each hunt – preferably wash dogs before leaving the hunting site, while wearing protective gear, and away from others.
- If dogs are wounded during a hunt, use protective gear while administering first aid (gently wash wounds with clean water and cover with dressings) and take the dog to a veterinarian – avoid stitching wounds.

Protecting you and your people?

- Ensure any equipment, clothes and vehicles are appropriately cleaned after each hunt, while wearing protective gear (goggles, mask, and gloves), to prevent other family members and pets being exposed to the bodily fluids of feral pigs.
- Advise your veterinarian if your dog has been in contact with feral pigs, feral pig meat or infected dogs, so that they can take appropriate precautions when conducting veterinary procedures.
- Dogs are most likely to be shedding the bacteria during and around the time of birth and lactation, so testing at-risk dogs prior to breeding, and wearing appropriate protective gear (goggles, mask, and gloves) at these times is recommended.

For further information on *B. suis* and human health, refer to:

- NSW Health Brucellosis Factsheet - <https://www.health.nsw.gov.au/infectious/factsheets/pages/brucellosis.aspx>
- NSW Health Brucellosis & Feral Pig Hunting - <https://www.health.nsw.gov.au/Infectious/factsheets/Pages/brucellosis-and-pig-hunting.aspx>

Signs of *B. suis* in dogs

Dogs infected with *Brucella suis* can remain bright, alert and show no obvious signs of infection.

Dogs can also display a range of signs including the following:

- Lethargy
- Enlarged testicle/s.
- Abortion.
- Fever
- Back pain.
- Limping.

Consult a veterinarian if you suspect brucellosis in your dog(s).

Diagnosis in dogs

Your veterinarian will collect and submit samples for testing. Unless the infective bacteria can be grown from tissue, the dog's history, signs and blood test results must all be considered.

A single definitive blood screening test is not available for *Brucella suis*. Blood tests will be reported as positive, inconclusive or negative. Dogs with inconclusive results should be retested in 6 weeks.

NSW DPI will pay the laboratory fees for testing dogs suspected of *Brucella suis* infection. If the dog tests positive, NSW DPI will also pay the laboratory fees for testing other in-contact dogs from the same owner. Any additional costs are the responsibility of the dog owner.

What if my dog tests positive for *Brucella suis*?

Brucella suis may be shed in urine, saliva, reproductive tissues and fluids (e.g., vaginal discharges, semen or when aborting or whelping). Contact with these fluids, wastes or tissues may lead to infection in people or other animals.

Because of the potential risk, it is highly recommended to:

1. Either euthanise or treat AND desex the infected dog.
2. Test all other in-contact dogs.

Treatment includes a long course of antibiotic therapy AND desexing. At the completion of the antibiotic course, the dog should be reassessed and re-tested by a private veterinarian.

There are no treatments that guarantee to cure brucellosis infections in dogs. Treatment may be ineffective, or dogs may initially respond to treatment and then relapse. If a treated dog relapses (i.e., shows signs of illness of brucellosis at a distant time in the future), the dog should be taken to a veterinarian as soon as possible for further assessment.

Euthanasia is the only guarantee to prevent spread to people or other animals.

It is also recommended that dogs that have contacted the infected dog are tested to check if they have been infected; these **in-contact dogs should be considered infectious until final test results are returned**. In-contact dogs should be tested when the infected dog is initially diagnosed and again six weeks later. If they are still negative at the second test, they have not been infected by the dog.

What precautions should be taken around infected dogs?

- Keep infected dogs isolated, away from all other animals
 - Avoid all unnecessary contact with infected dogs
 - Pregnant women and children are vulnerable to severe disease, and should avoid all contact with infected dogs, other dogs that have been in contact with the infected dog, and pig hunting dogs
 - People who develop symptoms after contact with potentially infected animals should seek prompt medical advice and mention their exposure to animals.
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NSW legislation

Brucellosis (*Brucella suis*) is a notifiable disease under NSW legislation. This means there is a legal obligation to notify authorities if you know or suspect an animal has this disease. You can report suspected or confirmed brucellosis in animals in one of the following ways:

- Call the Emergency Animal Disease Hotline on 1800 675 888;
 - Contact your Local Land Services District Veterinarian via www.lls.nsw.gov.au or 1300 795 299; or
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- Contact NSW Department of Primary Industries <http://www.dpi.nsw.gov.au/animals-and-livestock/bees/compliance/notifiable-animal-diseases-nsw>
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More information

For further information, please refer to:

- NSW DPI Brucellosis (Brucella suis) in pigs Primefact - <https://www.dpi.nsw.gov.au/animals-and-livestock/pigs/health/a-z-pig-diseases/brucellosis>
- NSW DPI Be a responsible pig dogger – <https://www.dpi.nsw.gov.au/hunting/game-and-pests/be-a-responsible-pig-dogger>
- NSW DPI Hunt safe, hunt legal: be a responsible pig dogger guide - <https://www.dpi.nsw.gov.au/hunting/game-and-pests/be-a-responsible-pig-dogger/hunt-safe,-hunt-legal-be-a-responsible-pig-dogger-guide>
- NSW Health Brucellosis Factsheet - <https://www.health.nsw.gov.au/infectious/factsheets/pages/brucellosis.aspx>
- NSW Health Brucellosis & Feral Pig Hunting - <https://www.health.nsw.gov.au/Infectious/factsheets/Pages/brucellosis-and-pig-hunting.aspx>

For general biosecurity enquiries, phone 1800 680 244 or email animal.biosecurity@dpi.nsw.gov.au

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