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1 5 **Acute Infections**

• Neck stretched out while coughing

Change in posture

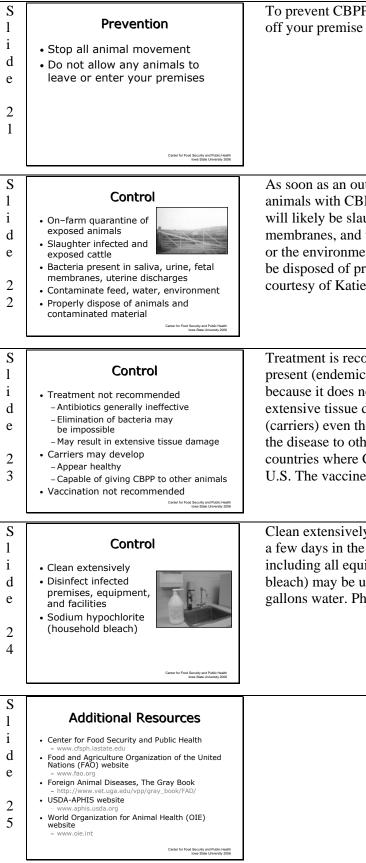
– Neck forward

– Legs apart
– Elbows turned out

CB	rr	
S 1 d e 1 1	Transmission Spread of the bacterium	
S 1 d e 1 2	<section-header><section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></section-header></section-header>	CBPP is transmitted primarily two different ways or routes. One is by aerosol transmission. Close proximity is necessary for transmission, which occurs primarily through breathing in infected droplets from a coughing animal. The second route is direct contact. Direct contact by the introduction of a carrier animal into a susceptible herd is the most common cause of outbreaks. Infection from the cow to the unborn calf has been known to occur.
S 1 i d e 1 3	Animals with CBPP	
S 1 d e 1 4	<section-header><section-header><section-header><section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></section-header></section-header></section-header></section-header>	The period of time from exposure to showing signs of sickness (incubation period) is highly variable, ranging from 10 days to six months. The time it takes to become ill depends primarily on how healthy the animal was to begin with. In adult animals, loss of energy, lack of appetite, fever (up to 107°F), and a drop in milk production are the first signs of CBPP. Early signs are followed by a cough which becomes moist if the animal is forced to move quickly. The signs progress to include pain in the chest, difficulty breathing, an increased breathing rate (up to 55 respirations per minute; normal is ~20 RPM), moaning while exhaling and reluctance to move. The photo depicts a
S	Clinical Signs:	coughing animal with neck extended (source: Foreign Animal Diseases:The Gray Book, http://www.vet.uga.edu/vpp/gray_book/FAD/).A common clinical finding in an animal infected with CBPP is the neck

A common clinical finding in an animal infected with CBPP is the neck outstretched when the animal is coughing as depicted in the photo. Also, it demonstrates that when the animal is standing, the usual posture is with the neck forward, the legs placed far apart, and the elbows turned out. Photo courtesy of www.fao.org.

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Actions to Take Contact your veterinarian Stop all animal movement	If you suspect a case or outbreak of CBPP, contact your veterinarian immediately and stop all animal movement.
	Humans are not susceptible to contagious bovine pleuropneumonia
CBPP in Humans	infection.
Contagious hovine pleuroppeumonia	
does not cause disease in humans	
Center for Socially and Real-Health Isoa Statu (Unevenity 2009	
Prevention and Control	There are various prevention and control methods that can be applied to CBPP and those will be discussed here.
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To prevent CBPP from entering your farm, all animal movement on and off your premise must be stopped.

As soon as an outbreak is suspected, animals that were exposed to animals with CBPP must be quarantined. Infected and exposed animals will likely be slaughtered. Bacteria are present in saliva, urine, fetal membranes, and uterine discharges which may contaminate feed, water or the environment. The animals and contaminated materials will need to be disposed of properly. Photo depicts a quarantine of a livestock farm, courtesy of Katie Steneroden, ISU.

Treatment is recommended only in regions where CBPP is always present (endemic). Antibiotic treatment is generally not effective because it does not entirely eliminate the bacteria and may result in extensive tissue damage. The bacteria can remain in some animals (carriers) even though they appear healthy. They are capable of giving the disease to other animals. Vaccination is only recommended in countries where CBPP is always present- which does not apply to the U.S. The vaccine is not very effective and has adverse reactions.

Clean extensively because the bacteria that cause CBPP may survive for a few days in the environment. Be sure to disinfect the entire premises including all equipment and facilities. Sodium hypochlorite (household bleach) may be used, and is prepared by adding 2 gallons bleach to 3 gallons water. Photo shows a typical disinfectant.

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7		