

#### **Caprine Anthrax**

**JUNE 2015** 

Cause Bacill

Bacillus anthracis bacteria

Risk of Exposure in Illinois

Low

Risk of Transmission to exposed people

High

Mode of Transmission

Ingestion or inhalation of spores; handling contaminated carcass, hide or hair

Incubation Period Human: Cutaneous form: 3-10 days

Inhalation form: 1-5 days Gastrointestinal form: 2-5 days

Animal: 3-7 days (can range from 1-20 days)

Clinical Signs-Human Cutaneous form accounts for most human cases-red, raised

lesion; blister

**Pulmonary form**- fever; vague sense of ill-being; muscle pain; cough; respiratory distress, sweating, shock, death **Gastrointestinal form**- fever, vomiting, bloody diarrhea; general ill-being

Clinical Signs-Animal Acute form- sudden fever; incoordination; tremors;

respiratory distress; blood-tinged diarrhea; blood in urine and

milk; convulsions and \*death **Peracute form**- \*sudden death

\*Failure to achieve rigor mortis after death

Control and Prevention

Vaccinate livestock in endemic areas; vaccinate individuals in high risk occupations; deep burial/burn infected carcass

Comments

Reportable disease in Illinois

If anthrax is suspected, do **NOT** perform a necropsy; potential bioterrorist agent

Additional Information

http://emergency.cdc.gov/agent/anthrax/index.asp http://www.cfsph.iastate.edu/Factsheets/pdfs/anthrax.pdf



#### **Caprine Brucellosis**

**JUNE 2015** 

Cause

Brucella melitensis bacteria

Risk of Exposure in Illinois

Low (Illinois is currently Brucellosis free)

Risk of Transmission to exposed people

High

Mode of Transmission

Contact with infected animals especially aborted fetuses, fluids or membranes, and urine. Accidental injection with vaccine strain; inhalation or ingestion; contact with objects capable of harboring bacteria

Incubation Period

Human: 1 week - several months after infection

Animal: Variable

Clinical Signs-Human Fever; headache; chills; generalized weakness; nausea; weight loss; enlarged lymph nodes and spleen; Asymptomatic infections can occur. Symptoms may persist for years either intermittently or continuously.

Clinical Signs-Animal Infection is frequently latent. Abortion at approximately 4 months into gestation; mastitis; inflammation of the epididymis and testis; impaired fertility in bucks

Control and Prevention

Wear protective clothing around suspect animals; use cautious vaccination techniques; avoid unpasteurized dairy products and undercooked meat

Comments

Reportable disease in Illinois; potential bioterrorist agent

Additional Information

http://www.cfsph.iastate.edu/Factsheets/pdfs/brucellosis.pdf

http://www.cdc.gov/brucellosis/



## **Caprine Vibriosis**

JUNE 2015	CAPRINE CAMPYLOBACTERIOSIS
Cause	Campylobacter spp. bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Low; increased risk during the summer months
Mode of Transmission	Ingestion (contaminated food/water, raw milk, fecal-oral); Direct contact
Incubation Period	Human: 1-11 days (3-5 days average) Animal: 3-25 days (although most cases are asymptomatic)
Clinical Signs- Human	<b>Systemic form</b> ( <i>C. fetus</i> )-chills; sweats; fever; cough; weight loss; anorexia; vomiting; diarrhea; late term abortion <b>Enteric form</b> ( <i>C. jejuni</i> )-acute diarrhea +/- blood; abdominal pain; vomiting; headache; vague sense of ill-being
Clinical Signs- Animal	C. fetus and C. jejuni-infertility; late term abortion; stillbirths and weak lambs; metritis; occasional death
Control and Prevention	Dispose of aborted fetuses and placentas promptly; pasteurize milk; good personal hygiene
Comments	Person to person transmission has been observed.
Additional Information	http://www.cdc.gov/nczved/divisions/dfbmd/diseases/campylobacter/ acter/ http://www.cfsph.iastate.edu/Factsheets/pdfs/campylobacteriosis.pdf



## Caprine Chlamydia

ENZOOTIC ABORTION
Chlamydia spp. bacteria
Low
Rare
Ingestion (fecal-oral, milk); ocular secretions; inhalation; direct contact with birthing tissues; insect vector; birds
Human: Unknown Animal: Highly variable; goats may shed bacteria more than 2 weeks prior to aborting
Fever; headache; vomiting; abortion; pelvic inflammatory disease; septicemia (blood poisoning); kidney dysfunction
Late term abortions; stillbirths; low birth weight or premature offspring; inflammation of more than one joint; conjunctivitis; pneumonia; inflammation of the testis; cough
Wear protective clothing around suspect animals; good personal hygiene
Person to person transmission unknown
http://www.cfsph.iastate.edu/FastFacts/pdfs/chlamydiosis_F.pdf http://www.cfsph.iastate.edu/Factsheets/pdfs/chlamydiosis.pdf



# **Caprine Cryptosporidiosis**

JUNE 2015	CAPRINE CRYTPO
Cause	Cryptosporidium spp. protozoa parasite
Risk of Exposure in Illinois	Unknown
Risk of Transmission to exposed people	Moderate
Mode of Transmission	Fecal-Oral route; waterborne; airborne; food borne
Incubation Period	Human: 1-12 days (average is 7 days) Animal: 4-9 days; oocysts shed for up to 10 days
Clinical Signs- Human	Cramping; abdominal pain; profuse watery diarrhea; anorexia; weight loss; vomiting; headache; immunosuppressed patients exhibit more severe illness
Clinical Signs- Animal	Loss of appetite; depression; diarrhea; in outbreaks of diarrhea morbidity/mortality can be very high in goat kids less than 2 weeks of age.
Control and Prevention	Good personal hygiene; avoid contact with animals with diarrhea; proper fecal waste disposal
Comments	Parasite resistant to many disinfectants; person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/cryptosporidiosis.pdf  http://www.cdc.gov/parasites/crypto/



## Caprine Ringworm

JUNE 2015	DERMATOPHYTOSIS
Cause	Trichophyton spp; Microsporum spp. fungi
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Direct contact with infected animal, or indirect contact with objects capable of harboring the fungi
Incubation Period	Human: 7-14 days (can last from several days to few weeks) Animal: 2-4 weeks
Clinical Signs- Human	Fungi generally grow in keratinized tissue such as hair, nails and outer layer of skin; mucous membranes not affected. Itching; "ringworm" lesion; hair loss; inflammation
Clinical Signs- Animal	Focal areas of hair loss with raised, circular, non-itching skin lesions of variable size typically on the head and face; occasionally generalized skin involvement. Lesions usually resolve spontaneously in 2-4 months.
Control and Prevention	Sanitation; good personal hygiene; wear gloves when handling suspect animals or contaminated objects capable of harboring the fungi.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/dermatophytosis.pdf  http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/ Ringworm.html



### **Caprine Giardiasis**

JUNE 2015	CAPRINE GIARDIA
Cause	Giardia spp. protozoa parasite
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion (contaminated water, fecal-oral); fly possible vector
Incubation Period	Human: 1-25 days Animal: 5-14 days
Clinical Signs- Human	Sudden onset of diarrhea with foul-smelling stools; abdominal cramps; bloating; flatulence; nausea/vomiting; fatigue; dehydration; chronic infections may occur
Clinical Signs- Animal	Adult animals may be asymptomatic; young animals-diarrhea or soft stools; poor hair coat; flatulence; weight loss or failure to gain weight
Control and Prevention	Good personal hygiene; thoroughly cook food; boil contaminated water; chlorine will not kill cysts.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/giardiasis.pdf  http://www.cdc.gov/parasites/giardia/index.html  http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/ Giardiasis.html



## **Caprine Leptospirosis**

JUNE 2015	CAPRINE LEPTO
Cause	Leptospira spp. bacterial spirochete
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of contaminated water; inhalation; direct contact with urine or through skin lesions; walking barefoot
Incubation Period	Human: 2 days-4 weeks Animal: 3-7 days (variable)
Clinical Signs- Human	Fever; headache; chills; cough; difficulty breathing; severe muscle pain or tenderness; reddening of the eyes; jaundice; meningitis; acute kidney failure; abortion
Clinical Signs- Animal	Usually asymptomatic; fever; anorexia; abortions or stillbirths; weak kids; infertility; blood in the urine; jaundice
Control and Prevention	Pasture drainage; protect water supply from animal contamination; wear protective clothing.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/leptospirosis.pdf  http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Leptos
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# **Caprine Listeriosis**

JUNE 2015	CIRCLING DISEASE
Cause	Listeria monocytogenes bacteria
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	Low (unless foodborne)
Mode of Transmission	Ingestion; direct contact; aerosol
Incubation Period	Human: Uncertain but considered to range from 3-70 days Animal: 10 days-3 weeks
Clinical Signs- Human	Flu-like symptoms: fever; diarrhea; headache; muscle aches; stiff neck; abortion, premature birth or sick newborn; meningitis; asymptomatic fecal carriers common; pregnant women, elderly and immunosuppressed at increased risk
Clinical Signs- Animal	Encephalitis (circling, head tilt, ear droop, excessive salivation, incoordination, depression, etc); abortion; septicemia (blood poisoning); many cases are asymptomatic
Control and Prevention	Use only good quality silage; control rodents; cook meat; pasteurize milk; good sanitation
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/listeriosis.pdf  http://www.cdc.gov/listeria/index.html



### **Caprine Sore Mouth**

JUNE 2015	CAPRINE CONTAGIOUS ECTHYMA
Cause	Pox virus
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High if open wounds on skin
Mode of Transmission	Direct contact with lesion or mucous membranes of infected animals; contact with contaminated objects capable of harboring the virus.
Incubation Period	Human: 3-7 days Animal: 2-3 days
Clinical Signs- Human	Most infected people develop a single lesion although generalized infections have been reported. Small, firm papule at site of inoculation progressing to a weeping (can be painful) nodule that develops into a thick crust; low-grade fever; enlarged lymph nodes; secondary bacterial infection may occur.
Clinical Signs- Animal	Nodule, pustule, or blister which may develop into thick crusts on lips, nose, ears, eyelids, occasionally feet, perineal region, inside mouth; doe nursing infected kids may develop lesions on teats and udder; uncomplicated infections usually resolve in 3-4 weeks.
Control and Prevention	Good personal hygiene; wear gloves if lesions are seen.
Comments	Human to human transmission is nonexistent or very rare.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/contagious_ecthyma .pdf http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Sore %20Mouth.html



## **Caprine Pasteurellosis**

JUNE 2015	PASTEURELLA
Cause	Pasteurella spp. bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Low
Mode of Transmission	Wound contamination; inhalation; ingestion
Incubation Period	Human: Via wound-less than 24 hours (up to 14 days) Animal: Approx. 1-3 weeks after being introduced to stressful situation
Clinical Signs- Human	Local redness; swelling; skin infection and abscess; less commonly chronic pneumonia, meningitis and generalized illnesss
Clinical Signs- Animal	Symptoms start out vague with slight depression, anorexia and fever; labored breathing and cough may be present; thick nasal discharge; generalized illness
Control and Prevention	Vaccinate livestock; minimize stress; good personal hygiene; avoid scratches/bites
Comments	None
Additional Information	http://www.bu.edu/rohp/files/2010/01/zoonosis_domestic- table.pdf  http://cmr.asm.org/content/26/3/631.full



### Caprine Q-Fever

**JUNE 2015** 

Cause

Coxiella burnetti rickettsial bacteria

Risk of Exposure in Illinois

Moderate

Risk of Transmission to exposed people

High

Mode of Transmission

Inhalation (aerosol); ingestion; direct contact- organism is shed in placenta, vaginal secretions, urine, feces, milk; can be spread by ticks.

Incubation Period Human: 2-5 weeks Animal: Variable

Clinical Signs-Human Most cases are asymptomatic; sudden onset of fever; chills; frontal headache; weakness; muscle spasms; profuse sweating. Less commonly, hepatitis, endocarditis (inflammation of the innermost covering of the heart); premature birth, stillbirth, abortion, nonproductive cough; chest pain.

Clinical Signs-Animal Most infections are asymptomatic; reproductive failure may be the only symptom; abortions late in pregnancy; stillbirths; retained placenta; uterine infection; infertility; It has been reported that goats may have a decreased appetite and are depressed 24-48 hours prior to aborting.

Control and Prevention

Wear protective clothing/gloves when assisting with kidding or milking if infection is suspected in herd; appropriately dispose of placenta and birthing tissues; drink only pasteurized milk; good personal hygiene

Comments

Reportable disease in Illinois; potential bioterrorist agent; person to person transmission has been observed

Additional Information

http://www.cdc.gov/qfever/

http://www.cfsph.iastate.edu/Factsheets/pdfs/q\_fever.pdf



#### **Caprine Rabies**

**JUNE 2015** 

Cause

Rhabdovirus

Risk of Exposure in Illinois

Low

Risk of Transmission to exposed people

High

Mode of Transmission

Direct contact with infected saliva into break in skin or mucous membranes: animal bite

Incubation Period Human: 10 days-3months (up to years; depends on location

of bite/exposure)

Animal: 10 days-6 months

Clinical Signs-Human Headache; fever; general ill-being; abnormal behavior; weakness or paralysis; difficulty swallowing; delirium;

convulsions: death

Clinical Signs-Animal Restlessness; anorexia or increased appetite; any abnormal behavior or neurological signs (ataxia, incoordination, aggression, paralysis, etc.); fover; death

aggression, paralysis, etc); fever; death

Control and Prevention

Wear gloves when handling suspect animals; vaccination program for animals and individuals at high risk.

Comments

Reportable disease in Illinois; seek medical attention immediately if exposure is suspected; person to person transmission has been observed.

Additional Information

http://www.cfsph.iastate.edu/Factsheets/pdfs/rabies.pdf

http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/ Rabies.html

http://www.cdc.gov/rabies/



### Caprine Salmonellosis

**JUNE 2015** 

Cause

Salmonella spp. bacteria

Risk of Exposure in Illinois

High

Risk of Transmission to exposed people

Moderate

Mode of Transmission

Ingestion (fecal-oral); contaminated food and water; direct contact

Incubation Period Human: 12 hours-3 days

Animal: Highly variable; often symptoms do not appear until

the animal is stressed; common 1-5 days

Clinical Signs-Human Varies from self-limiting gastroenteritis to general illness; vomiting; watery diarrhea; low grade fever; abdominal pain

Clinical Signs-Animal Diarrhea; dehydration and generalized illness which may lead to death; abortion and uterine infection with temporary infertility; asymptomatic infections common

Control and Prevention

Wash hands after contact with animal feces; wear protective clothing when working with diarrheic goats; do not consume raw or unpasteurized dairy products; cook meat thoroughly.

Comments

Person to person transmission has been reported.

http://www.cdc.gov/salmonella/

Additional Information

http://www.cfsph.iastate.edu/Factsheets/pdfs/nontyphoidal\_salmo nellosis.pdf http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Salmonello

sis.html



#### **Caprine Tetanus**

JUNE 2015

Cause

Clostridium tetani bacteria

Risk of Exposure in Illinois

Low

Risk of Transmission to exposed people

High if open wounds on skin

Mode of Transmission

Direct contact; penetrating wound

Incubation Period Human: 8 days (ranges from 3 days 21 days)

Animal: Variable (3 days to 3 weeks)

Clinical Signs-Human Headache; muscle stiffness in jaw (lock jaw) followed by stiffness in neck; difficulty swallowing; rigidity of abdominal muscles; spasms; sweating; fever; death

Clinical Signs-Animal Muscle stiffness; lack of coordination; inability to eat or drink; bloat; death

Control and Prevention

Immunization; appropriate treatment of wounds; wear gloves when working with affected animals.

Comments

Tetanus vaccination is recommended for farm workers.

Additional Information

http://wwwnc.cdc.gov/travel/yellowbook/2012/chapter-3infectious-diseases-related-to-travel/tetanus.htm

http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/tetanus.pdf



#### Caprine Transmissible Spongioform Encephalopathy

**TSE JUNE 2015** Prion Cause Risk of Exposure in Negligible Illinois Risk of Transmission Low to exposed people Mode of Ingestion Transmission Incubation Human: Several years (for Transmissible Spongioform Period encephalopathy) Animal: 3-8 years Clinical Signs-Confusion; personality changes; behavioral changes; weakness; muscle spasms; changes in vision; death Human Clinical Signs-Behavioral disturbances; neurological signs; wasting and Animal paralysis; death Control and Slaughtered animals may be tested prior to release for consumption; necropsy goats with neurological signs Prevention Reportable disease in Illinois; person to person transmission Comments has been observed; potential bioterrorist agent http://www.aphis.usda.gov/animal\_health/animal\_diseases/s Additional crapie/downloads/fs ahscrapie.pdf Information http://www.cfsph.iastate.edu/Factsheets/pdfs/transmissible spongiform encephalopathy.pdf http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/

Scrapie.html



### **Caprine Yersiniosis**

JUNE 2015	YERSINIA/PSEUDOTUBERCULOSIS
Cause	<i>Yersinia</i> spp. bacteria
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of food, milk, or water contaminated by intestinal carriers; infection of rodents transmitted to humans by bite of infected fleas; direct contact with infected blood or tissues
Incubation Period	Human: 2-8 days Animal: Uncertain
Clinical Signs- Human	Mimics clinical signs similar to appendicitis; fever; abdominal tenderness; anorexia; vomiting; enteritis with diarrhea; respiratory illness
Clinical Signs- Animal	Acute septicemia; enteritis with diarrhea; abortion; possible death within 2 weeks-3 months
Control and Prevention	Prevent fecal contamination of food and drinking water; pasteurize milk; good personal hygiene
Comments	Potential bioterrorist agent; Person to person transmission has been observed.
Additional Information	https://www.avma.org/News/Journals/Collections/Documents /javma_222_4_444.pdf  http://www.cdc.gov/nczved/divisions/dfbmd/diseases/yersinia/