



















Select Zoonotic Diseases of Companion Animals

Human	 Person-to-Person  Vector-Transmitted	● = Potential System Affected						IOWA STATE UNIVERSITY* cfsph@iastate.edu • http://www.cfsph.iastate.edu		
Disease		Routes of Transmission	Septicemia	Respiratory	Intestinal	Cutaneous	Ocular	Neurological	Incubation Period	Prominent Clinical Signs and Symptoms
BACTERIA										
Brucellosis <i>Brucella species</i>		direct contact (infected animal tissue); inhalation; ingestion (unpast. milk)	●					●	1-21 days	Flu-like signs; cyclic fever; arthritis; orchitis; epididymitis; hepatomegaly; Chronic: neurological; endocarditis
Campylobacteriosis <i>Campylobacter jejuni</i> , <i>C. fetus</i> , <i>C. coli</i>		ingestion (contaminated food, fecal-oral)			●				1-10 days	Diarrhea with or without blood; fever; nausea; vomiting; abdominal pain; headache; muscle pain
Cat Scratch Fever <i>Bartonella henselae</i>		direct contact (scratch or bite of cat)				●			3-20 days	Self-limiting; mild to severe skin rash at site of inoculation; lymphadenopathy; fever; malaise; fatigue; complications or atypical signs for 5-16% of cases
Chlamydiosis (mammals) <i>Chlamydomphila abortus</i> , <i>C. felis</i>		ingestion (fecal-oral); inhalation; direct contact (birthing tissues)	●						unknown	Fever; headache; vomiting; abortion; pelvic inflammatory disease; septicemia; hepatitis; kidney dysfunction; disseminated intravascular coagulation
Ehrlichiosis <i>Ehrlichia</i> , <i>Neorickettsia</i> , <i>Anaplasma</i>		ticks		●	●	●	●	●	7-10 days	Headache; fever; chills; myalgia; vomiting; diarrhea; conjunctivitis; cough; confusion; children may develop a rash; severe in immunosuppressed patients
Leptospirosis <i>Leptospira species</i>		ingestion (contaminated water); inhalation; direct contact (urine)		●			●	●	7-12 days	Biphasic illness; fever; headache; chills; severe leg myalgia; conjunctival injection; jaundice; aseptic meningitis; cough; dyspnea; acute renal failure; abortion
Lyme Disease <i>Borrelia burgdorferi</i>		ticks				●			7-14 days	"Bulls-eye" rash with central clearing; malaise; fatigue; fever; headache; stiff neck; myalgia; arthralgia; lymphadenopathy; chronic recurring arthritis
Plague <i>Yersinia pestis</i>	 	direct contact (infected animal); fleas; inhalation	●	●					1-6 days	Flu-like signs; enlarged tender lymph nodes – "buboes"; rapid pneumonia; respiratory failure; toxemia; shock; death
Psittacosis <i>Chlamydomphila psittaci</i>		inhalation (infected bird dander, droppings, secretions)		●		●		●	7-28 days	Flu-like signs; rash; extensive pneumonia; endocarditis; myocarditis; encephalitis
Q Fever <i>Coxiella burnetii</i>		direct contact (infected body fluids); ingestion (unpast. milk); inhalation; ticks		●			●	●	10-40 days	Flu-like signs; profuse sweating; severe headache; pneumonitis, no cough or chest pain; hepatitis; osteomyelitis; arteritis; endocarditis; neurologic signs; in-utero death; placentitis
Rocky Mountain Spotted Fever <i>Rickettsia rickettsii</i>		ticks			●	●	●	●	2-14 days	Fever; chills; malaise; headache; myalgia; vomiting; diarrhea; edema of the face or extremities; conjunctivitis; non-pruritic macular rash, may involve palms of hands or soles of feet; coma
Salmonellosis <i>Salmonella species</i>		ingestion (fecal-oral)	●		●			●	12 hours to 18 days	Acute enterocolitis; headache; abdominal pain; fever; diarrhea; nausea; septicemia; meningitis. May be severe in the very young, elderly, or immunosuppressed
Streptococcosis <i>Streptococcus canis</i> , <i>S. equi</i> subsp. <i>zooepidemicus</i> , <i>S. iniae</i> , <i>S. suis</i>		ingestion (contaminated food); inhalation; direct contact (infected animal)	●	●		●		●	hours to 3 days	Pharyngitis; pyoderma; abscesses; cellulitis; endocarditis; polyarthritides; pneumonia; septicemia; streptococcal toxic shock syndrome
Tularemia <i>Francisella tularensis</i>		arthropods (ticks, deer flies, mosquitoes); direct contact; inhalation; ingestion	●	●	●	●	●		1-14 days	Flu-like signs; exhaustion; ulcerative lesion; enlarged painful lymph nodes; painful purulent conjunctivitis; abdominal pain; diarrhea; vomiting; chest pain; respiratory distress; pneumonia; sepsis; death

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Disease	 Vector-Transmitted	Routes of Transmission	Septicemia	Respiratory	Intestinal	Cutaneous	Ocular	Neurological	Incubation Period	Prominent Clinical Signs and Symptoms
FUNGI										
Cryptococcosis <i>Cryptococcus neoformans</i>		inhalation (infected pigeon droppings)		●				●	unknown	Most asymptomatic; fever; malaise; coughing; chest pain; dyspnea; headache; weight loss; meningo-encephalitis in immunosuppressed patients; death
Dermatophytosis <i>Microsporum species, Trichophyton species</i>		direct contact (infected animal)				●			7-14 days	"Ringworm", raised, inflamed, pruritic, circular lesion with central clearing; alopecia; thick, discolored nails; may disseminate in immunosuppressed patients
Sporotrichosis <i>Sporothrix schenckii</i>		Direct contact (cat, plant material); inhalation		●		●			3-12 weeks	Cutaneous form most common; nodule or pustule at site of inoculation; progresses to slow-healing ulcerations; infection follows lymphatic vessels; pulmonary and disseminated forms are rare
PARASITES										
Acariasis (Mange) <i>Numerous species of mites</i>		direct contact (infected animal)				●			1-4 days	Severe pruritis on arms, chest, abdomen, thighs; macules, papules, pustules; possible severe painful dermatitis with allergic reactions and chronic lesions
Baylisascariasis <i>Baylisascaris procyonis</i>		ingestion (fecal-oral)		●			●	●	7-30 days	Symptoms vary with number and location of larvae; fever; nausea; lethargy; hepatomegaly; pneumonitis; neurological signs; brain damage; blindness; death
Cysticercosis <i>Taenia species</i>		ingestion (fecal-oral)					●	●	10 days to years	Symptoms vary with number and location of larvae; chronic headaches, seizures most common; stroke; focal neurological signs; blurred vision; death
Echinococcosis (hydatid disease) <i>Echinococcus granulosus, E. multilocularis</i>		ingestion (fecal-oral)		●	●		●	●	months to years	Asymptomatic; signs associated with mass lesion; liver and lungs most common; abdominal pain; vomiting; jaundice; liver failure; cough; chest pain; blindness; seizures
Giardiasis <i>Giardia intestinalis</i>		ingestion (contaminated water, fecal-oral)			●				1-25 days	Sudden onset of diarrhea with foul-smelling stools; abdominal cramps; bloating; flatulence; nausea; fatigue; dehydration; chronic infections may occur
Larva Migrans (cutaneous) <i>Ancylostoma species</i>		direct contact (larvae)				●			7-14 days	Pruritus; winding threadlike cutaneous lesion with erythema and swelling
Larva Migrans (visceral, ocular) <i>Toxocara species</i>		ingestion (fecal-oral)		●	●		●	●	weeks to months	Severe in young children; fever; cough; hepatomegaly; pneumonia; ocular invasion; vomiting; weakness; anorexia; arthralgia; myalgia; lymphadenopathy
Leishmaniasis <i>Leishmania species</i>		sand flies				●			7 days to years	Cutaneous: papule; ulcer; may be chronic; Visceral: prolonged undulant fever; splenomegaly; hepatomegaly; fatal if untreated
Taeniasis <i>Taenia species</i>		Ingestion (undercooked beef or pork)			●				10 days to years	May be asymptomatic; symptoms more common in children; abdominal pain; diarrhea or constipation; nausea; decreased or increased appetite; weight loss
Toxoplasmosis <i>Toxoplasma gondii</i>		ingestion (fecal-oral, undercooked meat)						●	5-23 days	Flu-like signs; fetal death; congenital abnormalities, (hydrocephaly, microcephaly); severe in immunocompromised patients; encephalitis
Trichuriasis <i>Trichuris suis, T. trichiura, T. vulpis</i>		ingestion (fecal-oral)			●				variable	Often asymptomatic; chronic diarrhea; abdominal pain; nausea; vomiting; flatulence; headache; weight loss; anemia; children may develop rectal prolapse
VIRUSES										
Influenza <i>Influenzavirus</i>		inhalation; direct contact (nasal secretions)		●	●				1-4 days	Fever; chills; anorexia; headache; myalgia; weakness; sneezing; rhinitis; sore throat; non-productive cough; pneumonia; nausea, vomiting, otitis media in children; death
Rabies <i>Lyssavirus</i>		direct contact; organ transplant						●	1-3 months	Headache; fever; malaise; abnormal behavior; paresis or paralysis; difficulty swallowing; delirium; convulsions; death

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References available at www.cfsph.iastate.edu/WallChartReferences/. Chart created by: Ingrid Trevino, DVM, MPH; Reviewed by Glenda Dvorak, DVM, MPH, DACVPM 2012-0913

Select Zoonotic Diseases of Companion Animals

Animal	● = Species with Zoonotic Potential						Incubation Period	Prominent Clinical Signs
	Dogs	Cats	Birds	Ferrets	Rabbits	Rodents		
Disease						Other		
BACTERIA								
Brucellosis <i>Brucella species</i>	●					cattle, goats, horses, pigs, sheep, wild ruminants	variable	Abortions; stillborn or weak newborns; retained placentas; placentitis; orchitis; epididymitis; arthritis; lameness; Goats: may have mastitis; Horses: suppurative bursitis, "fistulous withers" or "poll evil"
Campylobacteriosis <i>Campylobacter jejuni, C. fetus, C. coli</i>	●	●	●	●		● cattle, goats, mink, pigs non-human primates, sheep	3-25 days	Mucoid, watery, or blood-flecked diarrhea in many species; Cattle, Sheep, Goats: abortion; Hamsters: "wet tail"; may be fatal in newly hatched chicks; asymptomatic carriers common
Cat Scratch Fever <i>Bartonella henselae</i>		●				bobcats, cheetahs, cougars, panthers	2-16 days	No natural occurring disease reported; research studies have produced; fever; lethargy; anorexia; myalgia; lymphadenopathy; transient behavioral and neurological dysfunction
Chlamydiosis (mammals) <i>Chlamydia abortus, C. felis</i>		●				cattle, deer, goats, llamas, sheep	3-10 days in cats; others vary	Goats, Sheep: late term abortion; stillbirths; low birth weight or premature offspring; Cats: fever; conjunctivitis; ocular discharge; corneal ulcers; rhinitis Cattle: sporadic abortions
Ehrlichiosis <i>Ehrlichia, Neorickettsia, Anaplasma</i>	●					● cattle, sheep, horses, llamas, foxes, coyotes, non-human primates, wild ruminants	1-20 days	Dogs, Horses: fever; lethargy; anorexia; petechiae; lameness; edema in hind legs; Dogs: may develop bleeding disorders; Cattle, Sheep: abortions
Leptospirosis <i>Leptospira species</i>	●					● cattle, goats, horses, pigs,, sea lions, seals, sheep	4-12 days	Cattle, Goats, Pigs Sheep: abortions; decreased fertility; Calves, Piglets: fever; diarrhea; meningitis; Dogs: variable; hemorrhagic syndromes; kidney disease; Horses: ocular lesions
Lyme Disease <i>Borrelia burgdorferi</i>	●					● deer, horses, opossums, raccoons	2-5 months	Dogs: lameness; arthritis; Horses: lameness; arthritis; encephalitis; uveitis; dermatitis; edema of the limbs; abortion
Plague <i>Yersinia pestis</i>	●	●				● prairie dogs, rock and ground squirrels	1-6 days	High fever; extremely swollen lymph nodes – "buboes"; severe pneumonia; septicemia
Psittacosis <i>Chlamydia psittaci</i>			●			love birds, parakeets, parrots	3-10 days	Nasal and ocular discharges; conjunctivitis; yellow-green droppings; inactivity; ruffled feathers; inappetence; weight loss
Q Fever <i>Coxiella burnetii</i>	●	●			●	● cattle, goats, sheep	1-3 weeks	Typically asymptomatic; Goats, Sheep: abortion; anorexia; Cattle: infertility; sporadic abortion; Cats: subclinical; fever, anorexia, lethargy; abortion; Dogs: subclinical; splenomegaly
Rocky Mountain Spotted Fever <i>Rickettsia rickettsii</i>	●				●	● opossums, rabbits, rodents	2-14 days	Fever; anorexia; depression; lymphadenopathy; dyspnea; diarrhea; vomiting; joint or muscle pain; edema of the face or extremities; petechiae of oral or ocular membranes; ataxia; paraparesis; seizures; renal failure; coma
Salmonellosis <i>Salmonella species</i>	●	●	●			● reptiles (turtles, lizards, snakes); amphibians (frogs); hedgehogs; livestock species (poultry, horses, cattle)	variable	Clinical disease uncommon; may develop septicemia; anorexia; listlessness; osteomyelitis; osteoarthritis; subcutaneous abscesses; death
Streptococcosis <i>Streptococcus canis, S. equi subsp. zooepidemicus, S. iniae, S. suis</i>	●	●		●		● bison, cattle, fish, foxes, goats, horses, non-human primates, pigs, sheep	varies with form	Mastitis; metritis; placentitis; abortion; septicemia; wound infection; polyarthritis; pleuritis; endocarditis; abscesses; pneumonia; meningitis; pyoderma; toxic shock; death; Guinea Pigs: cervical lymphadenitis
Tularemia <i>Francisella tularensis</i>	●	●			●	● aquatic animals, horses, pigs, sheep	1-10 days	Sudden high fever with lethargy and anorexia; stiffness; reduced mobility; tachycardia; tachypnea; prostration and death; military white necrotic foci of liver, spleen or lymph node

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Animal	● = Species with Zoonotic Potential						Incubation Period	Prominent Clinical Signs
	Dogs	Cats	Birds	Ferrets	Rabbits	Rodents		
Disease						Other		
FUNGI								
Cryptococcosis <i>Cryptococcus neoformans</i>	●	●		●		cattle, sheep, goats, horses, llamas, foxes, mink, non-human primates	unknown	Cats: chronic rhinitis; sinusitis; lymphadenopathy; non-pruritic nodules on face; CNS disease; ocular lesions; osteomyelitis; Cattle, Sheep, Goats: mastitis; Dogs: neurologic disease; Horses: obstructive growths in the nasal cavity
Dermatophytosis <i>Microsporum species, Trichophyton species</i>	●	●	●	●	●	cattle, goats, horses, pigs, sheep	2-4 weeks	Young animals most susceptible; adults may be asymptomatic; small circular areas of alopecia; flakey skin; most species non-pruritic; Pigs: wrinkled lesion with thin brown, easily removed scab
Sporotrichosis <i>Sporothrix schenckii</i>	●	●				horses, donkeys, mules	1 month	Cutaneous form most common; disseminated form rare; Horses, Cats: nodules develop into slow-healing ulcers; suppurative lymphadenitis; Dogs: nodules may or may not be ulcerated
PARASITES								
Acariasis (Mange) Numerous species of mites	●	●	●	●	●	bats, cattle, felids, fox, goats, horses, pigs, sheep, raccoons	10-60 days	Pruritic; secondary pyoderma; depression; anorexia; chronic infection may lead to hyperkeratotic lesions; fatal infestations may be seen in wild animals; Ferrets: pododermatitis; self-mutilation
Baylisascariasis <i>Baylisascaris procyonis</i>	●		●*		●	raccoons, kinkajous *Birds highly susceptible, but do not transmit to people	10-20 days	Dogs, Raccoons: usually asymptomatic; Rodents, Rabbits: neurological signs; circling; torticollis; ataxia; head tremors; progressive weakness; dysphagia; death
Cysticercosis <i>Taenia species</i>	●	●			●	bears, cattle, goats, llamas, non-human primates, sheep, pigs, wild ruminants	10 days to 6 months	Severity of clinical signs depend upon number and location of larvae; Goats, Sheep: fever; head tilt; circling; meningoencephalitis; ataxia; blindness; paralysis; convulsions; death; Cattle, Pigs: fever; muscle weakness; Dogs, Cats: neurological signs
Echinococcosis (hydatid disease) <i>Echinococcus granulosus, E. multilocularis</i>	●	●				cattle, sheep, goats, horses, pigs, non-human primates	unknown	Carnivores: asymptomatic; incidental finding of cysts at necropsy; Herbivores: can affect liver, abdominal cavity; ascites; hepatomegaly; dyspnea; diarrhea; vomiting; weight loss; Rodents: fatal within weeks
Giardia <i>Giardia intestinalis</i>	●	●				beavers, cattle, sheep	5-14 days	Adults: may be asymptomatic; Young: diarrhea or soft stools; poor hair coat; flatulence; weight loss or failure to gain weight; clinical signs vary depending upon species of animal infected
Hookworms <i>Ancylostoma species</i>	●	●					7-20 days	Disease will vary with parasite burden and age of the animal; severe in puppies; diarrhea; anorexia; emaciation; weakness; poor hair coat; anemia; interdigital dermatitis, death
Roundworms <i>Toxocara species</i>	●	●					30 days	Severe in puppies and kittens; lack of growth; loss of condition; "potbellied"; parasites in vomit and feces; pneumonia; diarrhea
Leishmaniasis <i>Leishmania species</i>	●	●				canids, horses, marsupials, non-human primates	3 months to years	Cats, Horses: cutaneous form; non-pruritic exfoliative dermatitis around eyes, ears; Dogs: Foxhounds most commonly affected; cutaneous lesions; fever; anemia; lymphadenopathy; weight loss; anorexia; ocular lesions; splenomegaly
Taeniasis <i>Taenia species</i>	●	●				coyotes, fox, lynx, non-human primates, wolves	5-12 weeks	Visible passage of proglottids from anus; other signs rare but may include unthriftiness; malaise; irritability; decreased appetite; mild diarrhea or colic
Toxoplasmosis <i>Toxoplasma gondii</i>		●			●	goats, horses, non-human primates, pigs, sheep	unknown	Most infections asymptomatic; Goats, Sheep, Pigs: abortions; stillbirths; Lambs: weak; high mortality rate; Cats: lethargy; persistent fever; anorexia; incoordination; paralysis; retinal detachment; death; Dogs: most asymptomatic
Trichuriasis <i>Trichuris suis, T. trichiura, T. vulpis</i>	●					non-human primates, pigs	10-12 days	Most cases asymptomatic; mucoid or hemorrhagic diarrhea; weight loss; unthriftiness; anemia; death may occur in piglets
VIRUSES								
Influenza <i>Influenzavirus</i>	●	●	●	●		pigs, horses	1-7 days	Pigs: fever; anorexia; dry cough; labored breathing; nasal discharge; Birds: mild to severe; coughing; sneezing; decreased egg production; death; Ferrets: nasal/ocular discharge; sneezing, lethargy, fever, inappetence
Rabies <i>Lyssavirus</i>	●	●		●	●	any mammal	10 days to 6 months	Restlessness; anorexia or increased appetite; vomiting; fever; ataxia; incoordination; ascending paralysis; increased aggression; death

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