

DISEASE	CAUSATIVE ORGANISM	PRINCIPAL ANIMALS INVOLVED	KNOWN DISTRIBUTION	PROBABLE MEANS OF SPREAD TO MAN
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BACTERIAL DISEASES

Anthrax	<i>Bacillus anthracis</i>	Cattle, sheep, goats, horses, wild herbivorous animals	Worldwide; common in Africa, Asia, South America, eastern Europe	Occupational exposure; food-borne in Africa, Russia, and Asia; occasionally wounds or insect bites; rarely airborne
Borreliosis	<i>Borrelia</i> spp	Rodents	Worldwide	Soft ticks (<i>Ornithodoros</i> spp)
Lyme disease	<i>B. burgdorferi</i>	Deer, wild rodents	Worldwide	Hard ticks (<i>Ixodes</i> spp)
Relapsing fever	<i>B. recurrentis</i> Louseborne or epidemic	No animal reservoir for the transmitting lice	Epidemic	Crushing infected lice
	Tick-borne or endemic	Wild rodents	Epidemic	Tick bites
Brucellosis	<i>Brucella abortus</i>	Cattle, bison, elk, caribou	Worldwide, except North America	Occupational and recreational exposure
	<i>B. melitensis</i>	Goats, sheep	Worldwide	Milk, cheese, contact
	<i>B. suis</i>	Swine, caribou	Northern hemisphere	Rarely airborne
	<i>B. canis</i>	Dogs, coyotes	Rare	
<i>Capnocytophaga</i> infection	<i>Capnocytophaga canimorsus</i> , <i>C. cynodegmi</i>	Dogs, cats	USA	Bites or scratches
<i>Campylobacter</i> enteritis	<i>Campylobacter jejuni</i>	Domestic animals, dogs, cats, poultry, wild birds	Worldwide	Mainly food-borne, milk, waterborne; occupational; exposure to infected dogs and cats
	<i>C. coli</i>	Nonhuman primates, laboratory animals, domestic pigs	Common	
Cat scratch disease	<i>Bartonella (Rochalimaea) henselae</i> , <i>B. quintana</i>	Cats	Worldwide	Scratches, bites, "licks"
Clostridial diseases (See also tetanus, below.)	<i>Clostridium perfringens</i> , type A	Domestic animals	Worldwide	Food-borne; occasionally wound contaminant
	<i>C. septicum</i> , <i>C. novyi</i>	Domestic and wild animals	Worldwide	Wound infection
Coliform diseases Enterohemorrhagic <i>Escherichia coli</i> infections (Enterotoxigenic, enteroinvasive, enteropathogenic, and enteroaggressive strains are not considered zoonotic.)	<i>Escherichia coli</i> 0157:H7; also implicated are types 026:H11, 0111:H8, 0104:H21, and 048:H21	Cattle, man	North and South America, Europe, South Africa, Japan, Australia	Ingestion of undercooked ground beef, or foods or water contaminated with bovine feces

Erysipeloid	<i>Erysipelothrix rhusiopathiae</i>	Swine, turkeys, pigeons, sea mammals, fish	Worldwide	Occupational and recreational exposure
Glanders	<i>Pseudomonas mallei</i>	Equids	Rare except for some regions in Asia	Occupational exposure
Leptospirosis	<i>Leptospira interrogans</i> (200 serovars) in 23 serogroups	Domestic and wild animals, common in rodents, dogs	Worldwide	Occupational and recreational exposure; water- and food-borne
Leprosy	<i>Mycobacterium leprae</i>	Armadillos	Southern Texas and Louisiana	Transmission of animal leprosy to man suspected
Listeriosis	<i>Listeria monocytogenes</i> types 1/2a, 1/2b, 4b	Numerous animals, birds	Worldwide	Food-borne among domestic animals by ensilage and hay; raw contaminated milk, cheese, mud, water, and vegetables are infectious; nosocomial infection in hospitals and institutions
Melioidosis (Pseudoglanders)	<i>Pseudomonas pseudomallei</i>	Rodents, sheep, goats, horses, swine, nonhuman primates, kangaroos, zoo animals	Asia, Africa, Australia, South America, USA; rare	Wound infection and ingestion; organisms live in soil and surface water
Mycobacteriosis	<i>Mycobacterium avium-intracellulare</i> complex	Many species of animals, some birds	Worldwide	Rare; reported in AIDS patients
	Mycobacteria other than tuberculosis	Cattle, other ruminants	Worldwide	
	<i>Mycobacterium paratuberculosis</i>	Cattle, occasionally sheep and other ruminants	Worldwide	Being investigated as cause of Crohn's disease; ingestion exposure
Pasteurellosis	<i>Pasteurella multocida</i> and other species	Many species of animals, birds	Worldwide	Wounds, scratches, bites
Plague	<i>Yersinia pestis</i>	Rodents, cats, rabbits, squirrels, related animals	Foci in Western USA, South America, Asia, Africa; rare	Fleas, aerosols, handling infected animals
Psittacosis and Ornithosis	<i>Chlamydia psittaci</i>	Parakeets, pigeons, parrots, turkeys, ducks, geese, etc; other isolates in cattle, sheep, goats, opossums, etc, rarely cause disease in man	Worldwide; common	Exposure to aerosols
Rat bite fever	<i>Streptobacillus moniliformis</i>	Rodents	Worldwide; rare	Bites of rodents; water- or food-borne
	<i>Spirillum minus</i>		Asia	
Salmonellosis	<i>Salmonella</i> spp (2000 serotypes, 200	Poultry, swine, cattle, horses, dogs, cats,	Worldwide; common	Food-borne infection, especially in the

	seen in the USA)	wild mammals and birds, reptiles, amphibians, crustaceans		elderly, infants, or immunosuppressed; occupational and recreational exposure
Streptococcal infections	<i>Streptococcus pyogenes</i> , other group A streptococci, uncommonly groups B-G	Cattle (<i>S. agalactiae</i>), swine (<i>S. suis</i>), horses (<i>S. equi</i>), occasionally other animals	Worldwide	Ingestion especially of raw milk; direct contact
Tetanus	<i>Clostridium tetani</i>	Principally herbivores, but all animals may be carriers	Worldwide	Wound infection and injections
Tuberculosis (See also mycobacteriosis, above.)	<i>Mycobacterium bovis</i>	Cattle, rarely other animals	Worldwide; rare in USA, Canada, Europe	Ingestion, inhalation, occupational exposure
	<i>M tuberculosis</i>	Monkeys, other nonhuman primates, rarely dogs, cats, and other domestic animals	Worldwide	Exposure to animals infected with human type tuberculosis
Tularemia	<i>Francisella tularensis</i> Type A virulent, type B less virulent	Wild animals, rabbits, rodents, cats, sheep	Circumpolar in America, Europe, Asia	Occupational and recreational exposure; insect bites; ingestion; inhalation
<i>Vibrio</i> food infection	<i>Vibrio parahaemolyticus</i> (Kanagawa phenomenon)	Marine shellfish	Pacific basin, warm shores of Asia	Ingestion
	<i>V. vulnificus</i> , other noncholera vibrios		Australia, North America	Ingestion; wound infection
	<i>V. cholerae</i> - nonagglutinating types	Crabs, shrimp, mussels	Worldwide except Europe; epidemic in some developing countries	Ingestion
Yersiniosis	<i>Yersinia pseudotuberculosis</i> (6 serotypes)	Animals and birds	Temperate zones	Ingestion; recreational exposure
	<i>Y. enterocolitica</i> (50 serotypes)	Domestic animals especially pigs, dogs, cats		

RICKETTSIAL DISEASES

Boutonneuse fever	<i>Rickettsia conorii</i> , <i>Rickettsia</i> spp	Dogs, rodents, other animals	Europe, Asia, Africa	Bite of infected ticks
Ehrlichiosis Sennetsu fever	<i>Ehrlichia chaffeensis</i> , <i>E. sennetsu</i>	Deer Rodents	USA Japan	Ticks
Murine typhus	<i>Rickettsia typhi</i> (<i>R. mooseri</i>) and related species	Rats, cats, opossums	Worldwide	Infected rodent fleas, possibly cat fleas
North Asian tick-borne rickettsiosis	<i>Rickettsia siberica</i>	Wild rodents	Siberia, Mongolia, China	Bite of infected ticks
Q fever	<i>Coxiella burnetii</i>	Sheep, cattle, goats, cats, other mammals	Worldwide; common	Mainly airborne; exposure to placenta; occasionally ticks and

				milk
Queensland tick typhus	<i>Rickettsia australis</i>	Bandicoots, rodents	Australia	Bite of infected <i>Ixodes</i> tick
Rickettsial pox	<i>Rickettsia akari</i>	Mice	Eastern USA, Africa, Russia; rare	Bite of infected rodent mites, <i>Liponyssoides</i> spp
Rocky Mountain spotted fever	<i>Rickettsia rickettsii</i>	Rabbits, field mice, dogs	Western hemisphere	Bite of infected ticks or their crushing on the skin of <i>Dermacentor variabilis</i> , <i>D. andersoni</i>
Scrub typhus	<i>Rickettsia tsutsugamushi</i> and related species	Rodents	"Typhus islands" in Asia, Australia, East Indies	Bite of infected larval trombiculid mites
Typhus	<i>Rickettsia prowazekii</i>	Flying squirrels	Eastern USA	Squirrel fleas or ticks suspected

FUNGAL DISEASES

Allergic bronchopulmonary aspergillosis	<i>Aspergillus</i> spp	Birds and mammals; principally environmental in decaying vegetation or grains	Worldwide; sporadic	Environmental exposure
Blastomycosis	<i>Blastomyces dermatitidis</i>	Dogs, cats, horses, sea mammals; principally environmental in moist soil	Worldwide	Environmental exposure; also reported by animal exposure
Candidiasis (Moniliasis)	<i>Candida</i> spp	Principally human reservoirs, occasionally by birds and mammals	Worldwide	Direct contact; often endogenous in man
Coccidioidomycosis	<i>Coccidioides immitis</i>	Cattle, sheep, horses, dogs, wild cats, desert rodents, other animals; principally environmental in specific arid foci	Southwestern USA, Mexico, Central and South America	Environmental exposure
Cryptococcosis	<i>Cryptococcus neoformans</i>	Pigeons, mammals; principally environmental	Worldwide	Environmental exposure, especially pigeon nests
Dermatophilosis	<i>Dermatophilus congolensis</i>	Cattle, horses, deer, sheep, other mammals	Worldwide	Contact; arthropod vectors
Histoplasmosis	<i>Histoplasma capsulatum</i>	Dogs; principally environmental in river valleys	Worldwide	Environmental exposure
Nocardiosis	<i>Nocardia asteroides</i> , <i>N. brasiliensis</i> , <i>N. caviae</i>	Cattle, dogs, other mammals, fish; principally environmental in decomposing organic matter	Worldwide	Environmental exposure
Rhinosporidiosis	<i>Rhinosporidium seeberi</i>	Horses, cattle, mules, dogs, and birds;	Worldwide, endemic in South	Environmental exposure

		unidentified environmental reservoirs	Asia	
Ringworm (Dermatophytosis)	<i>Microsporum</i> , <i>Trichophyton</i> , and <i>Epidermophyton</i> spp	Dogs, cats, cattle, rodents, other animals	Worldwide	Direct contact with infected animals and fomites
Sporotrichosis	<i>Sporothrix schenckii</i>	Horses, other domestic and laboratory animals, birds; primarily environmental in vegetation (moss) and wood	Worldwide	Occupational contact, including with animals

PARASITIC DISEASES & PROTOZOAN DISEASES

Babesiosis	<i>Babesia microti</i> , <i>B. bovis</i>	Wild rodents, cattle	Worldwide; rare	Bites of infected <i>Ixodes</i> ticks
	<i>B. divergens</i>	Cattle, other mammals	Europe	
Balantidiasis	<i>Balantidium coli</i>	Swine, rats, nonhuman primates	Worldwide; low incidence	Ingestion, especially of water
Chagas' disease (American trypanosomiasis)	<i>Trypanosoma cruzi</i>	Dogs, cats, bats, rodents, armadillos, wild and domestic animals	Western hemisphere, Texas, Mexico, Central and South America	Fecal material of triatoma bug, including Reduviidae (also called cone-nosed, kissing, or assassin bug); contaminates bite wounds, abrasions, or mucous membranes
Cryptosporidiosis	<i>Cryptosporidium parvum</i>	Cattle, other animals	Worldwide	Occupational contact; ingestion; waterborne
Giardiasis	<i>Giardia lamblia</i>	Beavers, porcupines, dogs, other animals	Worldwide; common	Water and less often food; person to person
Leishmaniasis Visceral (Kala-azar)	<i>Leishmania donovani</i> and other species	Wild canids and dogs	Southern Asia, South America, Africa	Bite of infected phlebotomine sandflies
Cutaneous and mucosal	<i>L. tropica</i> , <i>L. braziliensis</i> complex	Canids, marsupials, sloths, wild mammals, rodents		
Malaria of nonhuman primates	At least 20 species of <i>Plasmodium</i>	Monkeys, chimpanzees	Tropical Americas, Asia, Africa	Anopheline mosquitoes
<i>Pneumocystis</i> pneumonia	<i>Pneumocystis carinii</i> (human strain)	Rodents, dogs, cats, cattle (animal strains)	Worldwide; common in AIDS patients	Environmental exposure
Sarcocystosis (Sarcosporidiosis)	<i>Sarcocystis suihominis</i>	Swine	Worldwide	Ingestion of raw pork
	<i>S. hominis</i>	Cattle		Ingestion of raw beef
Toxoplasmosis	<i>Toxoplasma gondii</i>	Mammals, especially cats, food animals, birds	Worldwide; common	Ingestion of oocysts shed in feces of infected cats or found in meat or raw milk
Trypanosomiasis	<i>Trypanosoma brucei</i> ,	Wild and domestic	Africa; common	Bite of infected tsetse

(African sleeping sickness)	<i>T. brucei rhodesiense</i> , <i>T. brucei gambiense</i>	dogs, ruminants, hyenas, carnivores		fly (<i>Glossina</i> spp)
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TREMATODE (FLUKE) DISEASES

Clonorchiasis	<i>Clonorchis sinensis</i> (Chinese liver fluke)	Dogs, cats, swine, rats, wild animals	Asia	Ingestion of raw or partially cooked infected freshwater fish
Dicrocoeliasis	<i>Dicrocoelium dendriticum</i>	Ruminants	Worldwide	Ingestion of infected ants
	<i>D. hospes</i>	Ruminants	Africa	
Echinostomiasis	<i>Echinostoma ilocanum</i> and other <i>Echinostoma</i> spp	Cats, dogs, rodents, fish	Asia	Ingestion of uncooked fish or shellfish
Fascioliasis	<i>Fasciola hepatica</i>	Cattle, sheep, other large ruminants (e.g., water buffalo)	Worldwide	Ingestion of contaminated greens, e.g., watercress
	<i>F. gigantica</i>		Africa and western Pacific	
Fasciolopsiasis	<i>Fasciolopsis buski</i>	Swine, dogs	Asian pig-raising regions	Ingestion of raw tubers and nuts of aquatic plants
Gastrodiscoidiasis	<i>Gastrodiscoides hominis</i>	Swine, rats	Asia	Snails (metacercariae encyst on plants)
Heterophyiasis	<i>Heterophyes</i> and other heterophids	Cats, dogs, foxes, fish-eating birds	Nile delta, Turkey, the Far East	Ingestion of undercooked fish
Metagonimiasis	<i>Metagonimus yokogawai</i>	Cats, dogs, other fish-eating mammals, fish	Asia, Europe, Siberia	Ingestion of undercooked fish
Nanophyetiasis	<i>Trogloitrema salmincola</i>	Dogs, fish-eating mammals, fish	North America, Siberia	Ingestion of undercooked fish
Opisthorchiasis	<i>Opisthorchis felineus</i> (Cat liver fluke)	Cats, dogs, foxes, swine	Eastern Europe, Asia, Siberia	Ingestion of uncooked fish containing encysted larva
	<i>O. viverrini</i> (Small liver fluke)	Dogs, cats, fish-eating mammals	Thailand, Laos	Ingestion of undercooked fish containing encysted larva
	<i>Amphimerus pseudofelineus</i>	Dogs, cats, coyotes, opossums	USA, Central and South America	Undetermined
Paragonimiasis (Lung fluke disease)	<i>Paragonimus westermani</i> , <i>P. africanus</i> , <i>P. mexicanus</i> and other species	Dogs, cats, swine, wild carnivores	China, India, Burma, Africa, tropical America	Ingestion of raw or partially cooked, infected freshwater crustaceans
Schistosomiasis (Bilharziasis)	<i>Schistosoma japonicum</i>	Cattle, buffalo, swine, dogs, cats, rodents	Southeast Asia, China, Philippines	Penetration of unbroken skin by cercariae larva from infected snails in water
	<i>S. hematobium</i>	People are the only reservoir	Africa, the Middle East	
	<i>S. mansoni</i>	Baboons, rodents, cattle, dogs	Africa, Arabia, tropical America	

	<i>S. mattbeeii</i>	Cattle	Southern Africa	
	<i>S. mekongi</i>	Dogs, monkeys	Southeast Asia	
Swimmer's itch	Schistosome cercariae	Birds, mammals	Worldwide	Penetration of unbroken skin by cercariae from infected snails in fresh and salt water

CESTODE (TAPEWORM) DISEASES

Bertielliasis	<i>Bertiella studeri</i> , <i>B. mucronata</i>	Primates, oribatid mites	Asia, South America, Africa	Ingestion of infected arthropods
Coenuriasis	<i>Taenia multiceps</i>	Definitive hosts of all species are other canids, sheep, other herbivores	Worldwide in scattered foci	Ingestion of tapeworm eggs in canine feces
	<i>T. serialis</i>	Lagomorphs	Africa, Europe, USA; rare	
	<i>T. brauni</i>	Wild rodents	Africa	
Diphyllobothriasis (Fish tapeworm infection)	<i>Diphyllobothrium latum</i> (<i>Dibothriocephalus latus</i>), <i>Diphyllobothrium pacificum</i>	Man, dogs, bears, fish-eating animals, freshwater fish	Worldwide	Ingestion of raw or partially cooked infected fish
Dipylidiasis (Dog tapeworm infection)	<i>Dipylidium caninum</i>	Dogs, cats, fleas	Worldwide	Ingestion of dog or cat fleas
Echinococcosis	<i>Echinococcus granulosus</i>	Dogs, sheep, cattle, swine, rodents, deer	Worldwide	Ingestion of tapeworm eggs
	<i>E. multilocularis</i>	Foxes, microtine rodents, coyotes, dogs, wolves, cats, voles, lemmings, shrews	Alaska, Canada, Asia, Europe	Ingestion of tapeworm eggs
	<i>E. vogeli</i>	Bush and hunting dogs, agouti, pacas, spiny rats	Central and South America	Ingestion of tapeworm eggs
Hymenolepiasis (Dwarf tapeworm infection)	<i>Hymenolepis nana</i>	Man, rodents	Worldwide	Ingestion of tapeworm eggs or infected insects
<i>Inermicapsifer</i> infection	<i>Inermicapsifer madagascariensis</i>	Rodents	Africa, southeast Asia, tropical America	Ingestion of infected arthropods
Mouse or rat tapeworm	<i>Hymenolepis nana</i> , <i>H. diminuta</i>	Rats, mice	Worldwide	Ingestion of cysticercoids in fleas, mealworms, etc, in food
Pork tapeworm disease	<i>Taenia solium</i>	Swine, man	Worldwide where swine are reared (rare in USA, Canada, UK, Scandinavia)	Ingestion of undercooked pork containing <i>Cysticercus cellulosae</i> ; direct or autogenous transmission of <i>T solium</i> ova in man

				may lead to cysticercosis
Asian taeniasis	<i>Taenia saginata taiwanensis</i>	Domestic and wild pigs, cattle, monkeys	East and southeast Asia	Ingestion of undercooked meat
<i>Raillietina</i> infection	<i>Raillietina</i> spp	Birds, mammals	Tropical America, east Asia, Australia, Africa	Ingestion of infected arthropods
Sparganosis	<i>Spirometra</i> spp (pseudophyllidean tapeworms, second larval stage)	Monkeys, cats, pigs, dogs, weasels, rats, chickens, snakes, frogs, mice	Worldwide; common	Ingestion of infected cyclops or raw infected animal flesh
Taeniasis (Beef tapeworm disease) and Cysticercosis	<i>Taenia saginata</i>	Cattle, water buffalo	Worldwide	Ingestion of undercooked meat containing <i>Cysticercus bovis</i>

NEMATODES (WORM) DISEASES

Angiostrongyliasis (Visceral larva migrans)	<i>Angiostrongylus costaricensis</i>	Cotton rats, slugs	Central and South America, USA, east and southeast Asia	Ingestion of slugs or plants contaminated by their secretions
	<i>A. cantonensis</i>	Rats, snails, slugs		
Anisakiasis (Visceral larva migrans)	Larvae of <i>Anisakis</i> and <i>Pseudoterranova</i> spp	Marine invertebrates, fish, mammals	Japan, Scandinavia, western South America, western Europe, USA	Ingestion of undercooked marine fish, squid, octopus
Capillariasis				
Hepatic capillariasis	<i>Capillaria hepatica</i>	Rodents, other wild and domestic animals	Worldwide in scattered foci	Ingestion of embryonated eggs in soil
Intestinal capillariasis	<i>C. philippinensis</i>	Aquatic birds, freshwater fish	Northern Philippines, Thailand, east Asia, and Egypt	Ingestion of infected fish
Pulmonary capillariasis	<i>C. aerophila</i>	Dogs, cats, other carnivores	Worldwide	Ingestion of infective eggs in soil or contaminated food
Diectophymosis (Giant kidney worm infection)	<i>Diectophyma renale</i>	Dogs, mink, other carnivores, frogs	Europe, Asia, North and South America; rare	Ingestion of infected fish or frog's liver and mesentery
Dracunculiasis (Guinea worm infection)	<i>Dracunculus medinensis</i>	Man	Asia and Africa; common	Ingestion of infected cyclops in water
	<i>D. insignis</i>	Raccoons, mink, dogs	North America	Ingestion of frogs and other paratenic hosts
Dirofilariasis	<i>Dirofilaria immitis</i>	Dogs, cats, raccoons, bears, mosquitoes	Worldwide	Bites of infected mosquitoes
Malayan filariasis	<i>Brugia malayi</i>	Cats, other carnivores, monkeys, mosquitoes	Asia; common	Bites of infected mosquitoes
Tropical eosinophilia	<i>Brugia pahangi</i>			
Gnathostomiasis	<i>Gnathostoma spinigerum</i>	Dogs, cats, wild carnivores, copepods, freshwater fish	East Asia, India, Australia	Ingestion of infected fish or poultry

Gongylostrongylosis	<i>Gongylostrongylus pulchrum</i>	Ruminants, domestic and wild swine, other mammals; beetles	Worldwide; rare	Ingestion of infected arthropods
Larva migrans, cutaneous (See also gnathostomiasis, above.)	<i>Ancylostoma braziliense</i> , <i>A. caninum</i>	Cats, dogs, wild carnivores	Worldwide in tropics and subtropics; common	Contact with infective larvae that penetrate skin
	<i>Strongyloides stercoralis</i>	Cats, dogs, sheep, swine, etc	Worldwide in tropics and subtropics; rare to common	Contact with infective larvae that penetrate skin
Larva migrans, visceral (See also angiostrongyliasis and anisakiasis, above.)	<i>Toxocara canis</i> and <i>T. cati</i>	Dogs, cats	Worldwide	Ingestion of embryonated eggs shed in feces of dogs and cats
	<i>Baylisascaris procyonis</i>	Raccoons	North America, Europe	Ingestion of embryonated eggs in soil
Oesophagostomiasis Ternidensiasis	<i>Oesophagostomum</i> spp <i>Ternidens diminutus</i>	Primates	Asia, Africa, South America	Ingestion of infective larvae in soil
Strongyloidiasis	<i>Strongyloides stercoralis</i> , <i>S. fuelleborni</i>	Dogs, cats, foxes, primates	Worldwide; rare to common	Contact with infective larvae that penetrate skin
Thelaziasis	<i>Thelazia</i> spp	Dogs, cats, other domestic and wild animals, flies	East and south Asia; rare	Infected insects
Trichinosis (Trichinellosis)	<i>Trichinella spiralis</i> and subspecies	Swine, rodents, bears, wild carnivores, marine mammals	Worldwide, especially subarctic region	Ingestion of either pork or flesh of wild animals that contains viable cysts
Trichostrongyliasis	<i>Trichostrongylus</i> spp	Cattle, sheep, wild ruminants	Worldwide	Ingestion of infective larvae on plant foods or in soil
Trichuriasis (Whipworm infection)	<i>Trichuris trichiura</i> and other <i>Trichuris</i> spp	Man, other primates, domestic and wild canids, swine	Worldwide; common	Ingestion of embryonated eggs on plant foods or in soil

ACANTHOCEPHALIASIS

Macracanthorhynchosis	<i>Macracanthorhynchus hirudinaceus</i> and other spp	Domestic and wild pigs, squirrels, muskrats, arctic foxes, dogs, sea otters, crustaceans, fish	Worldwide; uncommon	Ingestion of infected beetles
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ANNELID (LEECH) DISEASES

Hirudiniasis	<i>Limnatis nilotica</i> and other leeches	Cattle, buffalo, horses, sheep, dogs, pigs	Africa, Asia, Europe, Chile	Direct contact with leeches
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ARTHROPOD DISEASES

Acariasis (Mange)	Mites of <i>Sarcoptes</i> , <i>Cheyletiella</i> , <i>Dermanyssus</i> , and <i>Ornithonyssus</i> spp	Domestic animals	Worldwide	Contact with infected individuals or animals; contaminated clothing
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Myiasis	<i>Cochliomyia hominivorax</i> (Screwworm)	Mammals	America	Invasion of living tissues by larvae
	<i>Chrysomya bezziana</i>		Asia, Africa	
	<i>Cordylobia anthropophaga</i> (Tumbu fly)		Africa	
	<i>Cuterebra</i> spp		North America	
	<i>Dermatobia hominis</i> (human botfly)		South America, Mexico	
	<i>Gasterophilus</i> spp (equine botfly)		Worldwide	
	<i>Hypoderma lineatum</i>		North America, Europe	
	<i>Hypoderma bovis</i> (warbles)		Asia, North Africa	
	<i>Oestrus ovis</i> , <i>Rhinoestrus purpurensis</i>		Worldwide	
	<i>Wohlfahrtia</i> spp		North America, Europe, north Africa, Asia	
Pentastomid infections	<i>Linguatula serrata</i> , <i>Armillifer</i> spp (Tongue worms)	Dogs, snakes, other vertebrates	Northern hemisphere Worldwide	Ingestion of infected animal tissues
Tick paralysis	Envenomization of ticks <i>Dermacentor andersoni</i> , <i>D. variabilis</i> and sometimes <i>Ixodes</i> , <i>Haemaphysalis</i> , <i>Rhinocephalus</i> , and <i>Argas</i> spp	Various animals	North America, Australia, South Africa, Ethiopia	Direct contact (attachment) with tick
<i>Tunga</i> infections	<i>Tunga penetrans</i> (Sand fleas, jiggers)	Man, dogs, pigs, other mammals	Subtropical Africa, Americas, south Asia	Contact with contaminated soil
VIRAL DISEASES				
African hemorrhagic fever	Marburg and Ebola viruses	African green monkeys	Central and southern Africa	Contact with infected tissues
Filovirus infections	Ebola-related Filoviruses	Cynomolgus monkeys	Southeast Asia	Person to person
Argentinean hemorrhagic fever	Junin virus (arenavirus)	Rodents	Argentina	Rodent excretions and secretions
Bolivian hemorrhagic fever	Machupo virus (arenavirus)	Rodents	Bolivia	Rodent excretions
Brazilian hemorrhagic fever	Sabiá virus (arenavirus)	Rodents are suspected	Brazil	Rodent excretions suspected; other aerosols
California group infections LaCross encephalitis	California group of bunyaviruses	Ground squirrels, other rodents	USA, Canada	Bites of mosquitoes (<i>Aedes</i> spp)
Tahyna fever		Hares, rodents, other mammals	Europe, Africa	

Central European tick-borne encephalitis	Central European encephalitis virus (flavivirus)	Rodents, hedgehogs, birds, goats, sheep	Europe	Bites of <i>Ixodes</i> ticks; may be milk-borne
Colorado tick fever	Colorado tick fever virus	Ground squirrels, chipmunks, porcupines, small rodents	Western USA; common	Bites of ticks (<i>Dermacentor andersoni</i>)
Contagious ecthyma (Orf)	Orf virus (parapox)	Sheep, goats, wild ruminants	Worldwide; common	Occupational exposure
Cowpox	Cowpox virus	Cattle, rodents, cats, zoo cats	Worldwide; rare, no recent cases	Contact exposure
Crimean-Congo hemorrhagic fever	Crimean-Congo hemorrhagic fever virus (bunyavirus)	Cattle, rodents, sheep, goats, hares, birds	Southern Russia, eastern Europe, Africa, the Middle East, Asia	Bites of ticks (<i>Hyalomma</i> and <i>Boophilus</i> spp)
Eastern equine encephalomyelitis	EEE virus (alphavirus)	Wild birds, domestic fowl, horses, mules, donkeys	Western hemisphere	Mosquitoes (<i>Culiseta melanura</i> and <i>Aedes</i> spp)
Encephalomyocarditis	Encephalomyocarditis virus (picornavirus)	Rats, mice, squirrels, swine, nonhuman primates	Worldwide	Environmental contamination
Far eastern tick-borne encephalitis (Russian spring-summer encephalitis)	Far eastern (Russian spring-summer encephalitis) virus (flavivirus)	Birds, small mammals, sheep	Asia, Europe; rare	Bites of ticks (<i>Ixodes persulcatus</i> and <i>Ixodes ricinus</i>)
Foot-and-mouth disease	Foot-and-mouth disease virus (aphthovirus types A, O, C, SAT, and Asia)	Cattle, swine, related cloven-hoofed animals	Europe, Asia, Africa, South America	Contact exposure; people quite resistant but can be carriers
Hantaviral diseases	Hantaviruses (bunyavirus)	Rodents	Worldwide	Aerosols from rodent excretions and secretions
Hantaviral pulmonary syndrome	Sin Nombre virus Black Creek Canal virus	<i>Peromyscus</i> spp, <i>Sigmodon hispidus</i>	USA, may be more widespread	
Hemorrhagic fever with renal syndrome (Korean hemorrhagic fever)	Hemorrhagic fever with renal syndrome virus (Hantaan virus)	<i>Apodemus</i> spp	China, Siberia, Korea, Manchuria, Japan	
Other hantaviral diseases	Dobrava virus Pnumala virus Seoul virus	<i>Apodemus</i> spp, <i>Clethrionomys</i> spp, <i>Rattus</i> spp	Balkan countries Europe Worldwide	
Simian herpes B virus disease	Simian B virus	Old World monkeys; cell cultures	Worldwide; rare	Bites of monkeys; occupational exposure
Influenza including type A (swine and equine)	Influenza virus (myxovirus)	Swine, ducks	Worldwide; common	Contact exposure; animals rarely a source
Japanese B encephalitis	Japanese encephalitis virus (flavivirus)	Swine, wild birds, horses	Asia, Pacific Islands from Japan to the Philippines	Bites of mosquitoes (<i>Culex tritaeniorhynchus</i> , other <i>Culex</i> spp)
Kyasanur forest disease	Kyasanur forest virus (flavivirus)	Rodents, monkeys	India	Bites of ticks (<i>Haemaphysalis spinigera</i>)

Lassa fever	Lassa virus (arenavirus)	Wild rodents	Africa	Rodent excretions and secretions; contact in hospitals and laboratories
Louping ill	Louping ill virus (flavivirus)	Sheep, goats, grouse, small rodents	Great Britain, Northern Ireland; rare	Bites of ticks (<i>Ixodes ricinus</i>)
Lymphocytic choriomeningitis	Lymphocytic choriomeningitis virus (arenavirus)	House mice, dogs, monkeys, guinea pigs, hamsters	Worldwide	Host excretions and secretions
Milker's nodules (Pseudocowpox)	Pseudocowpox virus (parapoxvirus)	Cattle	Worldwide; common	Occupational exposure
Monkeypox	Monkeypox virus	Nonhuman primates	West Africa; very rare	Contact; aerosols
Murray Valley encephalitis	Murray Valley encephalitis virus (flavivirus)	Wild birds	Australia, New Guinea; rare	Bites of mosquitoes (<i>Culex annulirostris</i>)
Newcastle disease	Newcastle disease virus (Paramyxovirus)	Fowl, wild birds	Worldwide; common	Occupational exposure
Omsk hemorrhagic fever	Omsk hemorrhagic fever virus (flavivirus)	Rodents, muskrats	Omsk, Siberia; rare	Bites of ticks (<i>Dermacentor</i> spp)
Rabies and rabies-related infections Lyssaencephalitis	Lyssaviruses Rabies virus Duvenhage virus Mokola virus Ibadan shrew virus Obodhiang virus	Wild and domestic canids, mustelidae, viverridae, vampire and insectivorous bats	Worldwide except Australia, New Zealand, UK, Ireland, Scandinavia, Japan, Taiwan; many smaller islands are also free, including Hawaii	Bites of diseased animals; aerosols in closed environments
Rift Valley fever	Rift Valley fever virus (phlebovirus)	Sheep, goats, cattle, camels	Africa; common to rare	Bites of mosquitoes (<i>Aedes</i> spp); contact on necropsy or handling fresh meat
St. Louis encephalitis	St. Louis encephalitis virus (flavivirus)	Wild birds, domestic fowl	Western hemisphere	Bites of mosquitoes (<i>Culex tarsalis</i> , <i>C. pipiens-quinquefasciatus</i> complex, <i>C. nigripalpus</i>)
Sindbis virus disease	Sindbis virus (alphavirus)	Birds	Eastern hemisphere; rare	Bites of mosquitoes (<i>Culex</i> spp)
Ross River fever	Ross River virus (alphavirus)	Undetermined	Australia, South Pacific Islands	Bites of mosquitoes (<i>Culex annulirostris</i> and <i>Aedes</i> spp)
Tanapox	Tanapox virus	Asian and African monkeys	Asia, Africa, and in colonies of monkeys	Contact; aerosols
Venezuelan hemorrhagic fever	Gnanarito virus (arenavirus)	Rodents	Venezuela	Rodent excretions
Venezuelan equine encephalomyelitis	VEE virus (alphavirus)	Rodents, equids	Western hemisphere; common	Bites of mosquitoes (<i>Monsonia</i> , <i>Aedes</i> , <i>Culex</i> spp)
Vesicular stomatitis	Vesicular stomatitis	Swine, cattle, horses,	North and South	Contact exposure and

	virus (Indiana and New Jersey strains)	bats, rodents, other wild mammals	America	insect bites, including mosquitoes and biting flies (<i>Phlebotomus</i> spp)
Wesselsbron fever	Wesselsbron virus (flavivirus)	Sheep	Southern Africa, southeast Asia	Bites of mosquitoes (<i>Aedes</i> , <i>Mansonia</i> , <i>Culex</i> spp)
West Nile fever	West Nile virus (flavivirus)	Wild birds, horses	Eastern hemisphere; common	Bites of mosquitoes (<i>Culex univittatus</i> , <i>C. pipiens</i> , <i>C. modestus</i>)
Western equine encephalomyelitis	WEE virus (alphavirus)	Wild birds, domestic fowl, horses, mules, donkeys, bats, reptiles, amphibians	Western and central USA, Canada, South America	Mosquitoes (<i>Culex tarsalis</i> in USA, other <i>Culex</i> and <i>Aedes</i> spp outside USA)
Yabapox	Yabapox virus	African monkeys	Africa; rare	Contact; aerosols
Yellow fever	Yellow fever virus (flavivirus)	Monkeys, baboons	Tropical America, Africa; sporadic	Bites of mosquitoes (<i>Aedes aegypti</i> in urban cycles, <i>Haemagogus</i> spp in jungle cycles in South America, <i>Aedes</i> spp in jungle cycles in Africa)