DuPage County Health Department
REVIEW

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111 North County Farm Road
Wheaton, IL 60187
(630) 682-7400
www.dupagehealth.org

Linda Kurzawa
President, Board of Health

Maureen McHugh
Executive Director

Rashmi Chugh, MD, MPH
Medical Officer

General Information

Communicable Disease and Epidemiology
(630) 682-7979, ext. 7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually Transmitted Diseases
(630) 682-7979, ext. 7553

HIV/AIDS
(630) 682-7979, ext. 7553

Tuberculosis
(630) 682-7979, ext. 7522

School Health
(630) 682-7979, ext. 7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact Communicable Disease and Epidemiology at (630) 682-7979, ext. 7553 or ebarajas@dupagehealth.org to send suggestions or to be added to the distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.

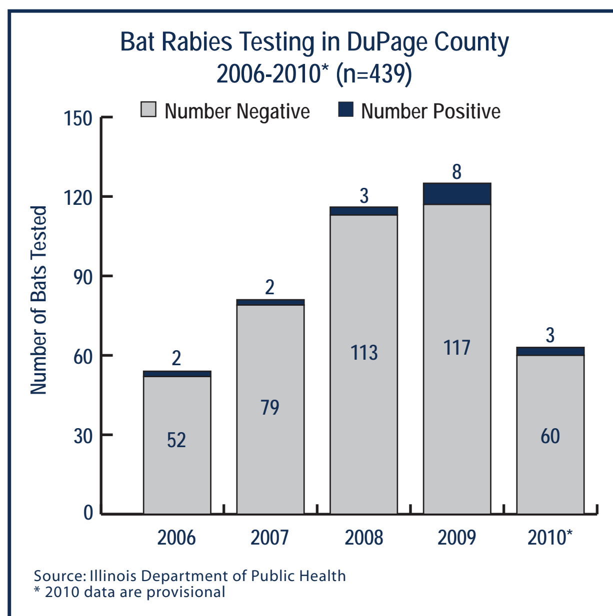
Under the Microscope
Rabies

All animal bites to humans that occur in DuPage County must be reported to ***Animal Care and Control at 630-407-2800****. All potential rabies exposures must be reported to* ***the DuPage County Health Department at 630-682-7979, ext. 7553.***

Rabies is a preventable viral disease of mammals most often transmitted from the bite of a rabid animal. The most common wild reservoirs of rabies are **bats, raccoons, skunks, foxes, and coyotes**. Domestic mammals can also acquire rabies, including cats, dogs, and livestock, if they are not vaccinated.[1,2] The virus is present primarily in the **saliva, brain tissue, and spinal fluid** of a rabid animal.[2]

Most of the recent cases of human rabies that have occurred in the U.S. have been caused by bat strains of rabies. Rabid bats can be found in any county in Illinois. Bats are the primary carrier of rabies in Illinois and already this year (as of July 22, 2011), 18 bats have tested positive for rabies.[2]

Bats, like all wild animals, should never be handled. People usually know when they have been bitten by a bat, but there are instances when a bite may not be apparent. **Bats have very small teeth and a physical inspection cannot be used to establish whether a bite occurred**. Exposure may occur if the animal's saliva enters an open cut or mucous membrane (nose, mouth, eyes).[2]



The presence of a bat in a home, or any contact with a bat, represents a possible hazard for rabies and should be reported to a physician or the local health department so that the circumstances can be evaluated.[2,3] For example, if a person awakens and finds a bat in the bedroom, or sees a bat in the room of an unattended young child, or sees a bat near a mentally impaired or intoxicated person, a physician or local health department should be consulted, and prophylaxis considered if the bat cannot be tested negative.[2,4] **The bat should not be discarded, and the bat's head should not be damaged, so the bat may be tested for rabies immediately.**

One to three people die in the U.S. every year from rabies, usually due to exposures to indigenous rabid bats, skunks, or raccoons, or to exposure to rabid dogs while traveling overseas. For this reason, **it is important that rabies be considered in all cases of unexplained encephalitis**. Rabies is nearly always fatal once symptoms appear, but it **can be prevented almost 100% of the time when postexposure prophylaxis including rabies vaccine and immunoglobulin is administered soon after a rabies exposure occurs**.[1] In the U.S., human fatalities associated with rabies occur in people who fail to seek medical assistance, **usually because they were unaware or do not recognize the risk of their exposure**.[1] The last human case in Illinois was reported in 1954.[2]

Post-exposure Prophylaxis (PEP)

If an animal suspected of having rabies cannot be submitted for testing (e.g., escaped bat, skunk) or observed (dogs, cats, or ferrets only), or if it tests positive for rabies, PEP of the individual with **(1) rabies immune globulin and (2) the vaccine series** must begin immediately.[2] The 2008 recommendations of the Advisory Committee on Immunization Practices (ACIP) have been revised and updated, reducing the 5-dose rabies vaccination regimen to 4 doses.[4,5] Evidence from various studies and epidemiologic surveillance indicated that **4 vaccine doses in combination with rabies immune globulin (RIG) elicited adequate immune responses** and that a fifth dose of vaccine did not contribute to more favorable outcomes.[5] ACIP recommendations for the use of **rabies immune globulin (RIG)** remain unchanged. In addition to prompt wound care, PEP consists of a regimen of **one dose of RIG (for immediate passive immunization) and four doses of rabies vaccine over a 14-day period (on days 0, 3, 7, and 14)** for most individuals (five doses recommended for immunosuppressed persons), initiated as soon as possible after exposure.[5] For persons **traveling who receive PEP abroad**, it might be necessary to provide additional therapy when the patient returns to the U.S. State or local health departments should be contacted for specific advice in such cases.[6]

Because animal rabies testing is a priority at the state laboratories, initiation of rabies PEP can await prompt testing of the animal brain. Current vaccines are relatively painless and are given **intramuscularly** in the arm, like an influenza or tetanus vaccine (e.g., **for adults, the deltoid area; for children, the anterolateral aspect of the thigh also is acceptable**). The gluteal area should not be used because administration of vaccine in this area might result in a diminished immunologic response. Children should receive the same vaccine dose (i.e., vaccine volume) as recommended for adults.[5]

References:

1. *www.cdc.gov/rabies/*
2. *www.idph.state.il.us/health/infect/reportdis/rabies.htm*
3. *www.idph.state.il.us/envhealth/pcbats.htm*
4. *www.cdc.gov/mmwr/PDF/rr/rr5703.pdf*
5. *www.cdc.gov/mmwr/pdf/rr/rr5902.pdf*
6. *www.cdc.gov/rabies/specific_groups/travelers/treatment_outside_us.html*

DUPAGE COUNTY HEALTH DEPARTMENT

CASES[1] OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in March 2008

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		2011		2010		2009		2008		2007		Median	
Vaccine Preventable Diseases	Report Within	Jun	Jan - Jun	Jan - Jun	Total	Jan - Jun	Total	Jan - Jun	Total	Jan - Jun	Total	Jan - Jun	Total ('07-'10)
Chickenpox (varicella)	24 hrs	1	40	69	95	85	146	110	236	117	177	85	161.5
Diphtheria	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Haemophilus influenzae, invasive	24 hrs	2	8	4	7	5	11	1	6	3	5	4	6.5
Hepatitis A	24 hrs	0	3	2	3	2	6	9	11	9	16	3	8.5
Hepatitis B	7 days	0	1	1	4	4	8	0	3	4	9	1	6
Hepatitis B (carriers)	7 days	6	48	53	108	58	127	69	128	85	167	58	127.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	0	1	0	0	NR	NR	0	0
Measles (rubeola)	24 hrs	0	0	0	0	1	1	14	14	0	0	0	0.5
Mumps	24 hrs	1	2	0	2	2	2	2	2	10	13	2	2
Neisseria meningitidis, invasive	24 hrs	0	1	1	1	3	6	1	4	1	1	1	2.5
Pertussis (whooping cough)	24 hrs	12	80	17	92	10	26	2	13	7	9	10	19.5
Poliomyelitis	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Streptococcus pneumoniae, invasive disease, in those < 5 yrs old	7 days	1	9	4	8	6	8	1	6	5	10	5	8
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis[2]	7 days	1	2	0	0	0	0	0	0	NR	NR	0	0
Anthrax	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, foodborne	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, other	24 hrs	0	0	0	0	0	0	0	0	1	1	0	0
Brucellosis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
California encephalitis[3]	7 days	0	0	0	0	0	0	0	0	NR	NR	0	0
Cholera	24 hrs	0	0	0	0	0	0	0	1	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	1	0	0	0	0	0	0	NR	NR	0	0
Cryptosporidiosis	7 days	0	0	2	5	3	5	0	1	1	5	1	5
Cyclosporiasis	7 days	0	0	0	0	1	1	0	0	0	0	0	0
Dengue fever[3]	7 days	0	0	2	4	0	4	0	0	0	1	0	2.5
Ehrlichiosis[2]	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Enteric *E. coli* infections[4]	24 hrs	3	8	9	18	6	12	8	21	3	6	8	15
Giardiasis	7 days	2	16	24	49	17	40	21	53	37	62	21	51
Glomerulonephritis[5]	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hantavirus pulmonary syndrome	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hemolytic uremic syndrome	24 hrs	0	0	0	0	0	0	0	1	0	0	0	0
Hepatitis C (cases & carriers)	7 days	9	94	101	187	119	224	135	246	108	203	108	213.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	NR	NR	0	0
Histoplasmosis	7 days	0	0	2	2	1	2	3	6	2	5	2	3.5
Influenza A, ICU admissions	3 hrs	0	24	0	3	NR	NR	NR	NR	NR	NR	NR	NR
Influenza A, novel virus	3 hrs	0	0	11	11	44	181	0	0	NR	NR	5.5	11
Legionellosis	7 days	1	3	6	11	4	13	1	5	2	13	3	12
Leprosy	7 days	0	0	0	0	0	0	1	1	0	0	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	1	1	0	0
Listeriosis	7 days	0	1	1	6	1	3	0	1	0	1	1	2
Lyme disease[2]	7 days	4	5	7	19	5	17	7	16	3	16	5	16.5
Malaria	7 days	0	1	1	4	2	4	3	4	5	7	2	4
Ophthalmia neonatorum	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Plague	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Psittacosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Q fever[6]	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	7	12	15	54	7	15	8	45	13	50	12	47.5
Reye syndrome	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever[5]	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever[2]	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Salmonellosis	7 days	12	47	54	136	40	89	51	105	54	133	51	119
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	NR	NR	0	0
Shigellosis	7 days	0	7	258	277	5	12	13	23	4	14	7	18.5
Smallpox	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Smallpox vaccination, complications	24 hrs	0	0	0	0	0	0	0	0	NR	NR	0	0
St. Louis encephalitis[3]	7 days	0	0	0	0	0	0	0	0	NR	NR	0	0
Staphylococcus aureus, methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	1	5	6	4	6	0	3	NR	NR	2.5	6
Staphylococcus aureus, methicillin resistant (MRSA), community cluster[7]	24 hrs	0	0	1	1	0	1	1	4	NR	NR	0.5	1
Staphylococcus aureus (vancomycin-resistant)	24 hrs	0	0	1	1	0	0	0	0	0	0	0	0
Streptococcal infections, group A invasive disease[8]	24 hrs	0	19	11	20	9	14	10	16	8	11	10	15
Toxic shock syndrome[9]	7 days	0	1	0	0	0	0	1	1	0	2	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	4	13	17	26	14	29	15	43	17	27	15	28
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	3	2	3	3	5	1	3	0	6	2	4
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	0	0	1	1	2	0	0	0	1	0	1
West Nile disease[3]	7 days	0	0	0	17	0	0	0	1	1	10	0	5.5
Yersiniosis	7 days	0	2	0	0	2	5	0	1	1	1	1	1
STDs, HIV and AIDS													
AIDS[10] (April - June)	7 days	**	6	17	31	8	19	11	22	12	20	4.5	21
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	112	667	766	1542	798	1555	761	1587	664	1522	761	1548.5
Gonorrhea	7 days	13	104	108	223	106	225	139	268	100	251	106	238
HIV infection[10] (April - June)	7 days	6	9	21	29	20	40	12	23	10	22	8.5	26
Syphilis	7 days	4	16	10	25	17	33	11	18	6	18	11	21.5

DuPage County healthcare providers and hospitals **must report any suspected or confirmed case of these diseases** to the local health authorities within the number of hours or days indicated.

REPORTING NUMBERS:

Communicable Diseases
(630) 682-7979, ext. 7553
24 hours: (630) 682-7400

Tuberculosis
(630) 682-7979, ext. 7522

STDs
(630) 682-7979, ext. 7553

HIV/AIDS:
(630) 682-7979, ext. 7553

[1] Provisional cases, based on date of onset

[2] Listed in CD Rules and Regulations under "Tickborne Disease"

[3] Listed in CD Rules and Regulations under "Arboviral Infections"

[4] O157:H7, STEC, EIEC, ETEC, EPEC

[5] Listed in CD Rules and Regulations under "Streptococcal infections, group A invasive disease sequelae"

[6] Q fever case in 2004 not related to any suspected bioterrorism threat or event

[7] Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period

[8] Includes streptococcal toxic shock syndrome and necrotizing fasciitis

[9] Due to *Staphylococcus aureus*

[10] HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis

NR = Not reported

** = Count of 5 cases or less

Websites

CDC:
www.cdc.gov

IDPH:
www.idph.state.il.us

DuPage:
www.dupagehealth.org

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www.dupagehealth.org/publications