



## Communicable Disease and Epidemiology News

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HEALTHY PEOPLE. HEALTHY COMMUNITIES.

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### Rabies Risk Associated with Contact with Bats, Raccoons, and Other Critters

Summer is here and with it comes the busiest time for animal bite and bat exposure reports to Public Health. Every year about half of all the animal bite and bat exposure reports occur between June and September, largely due to an increase in bat activity during that time. As of July 15, 2007, this year Public Health has received 327 reports of humans bitten by or exposed to bats and other animals where potential rabies exposure may have occurred.

Although rare, rabies still occurs in humans in the U.S. and is almost uniformly fatal. One to two deaths each year are attributed to rabies, and there may be additional deaths due to rabies that go undiagnosed. In Washington State, the most recent human cases (in 1995 in Lewis County and in 1997 in Mason County) were both due to infection with bat rabies strains.

#### Rabies and bats

Bats are the primary reservoir for rabies in Washington State; 7 percent of bats tested in Washington State between 2000 and 2006 were positive for rabies. However, the actual proportion of bats that are rabid is likely to be lower than this because healthy, non-rabid bats are not likely to be captured and tested. Two bats have tested positive for rabies so far this year in King County.

#### Rabies and wild terrestrial animals

No rabies cases have been identified in wild terrestrial animals in Washington in the past 60 years. However, there is currently no systematic surveillance for rabies among wild animals in our state - only animals involved in human exposures are tested. Sporadic rabies in skunks and foxes have occurred in recent years in Idaho, Oregon and British Columbia. Furthermore, spill-over of bat rabies into terrestrial animals (skunks) leading to a sustained epizootic has been documented in Arizona. Although the risk of rabies from terrestrial animals in Washington is low, without a good surveillance system it is possible for rabies to be present or emerge without detection. Therefore, after consultation with the CDC, Public Health continues to recommend rabies post-exposure prophylaxis (PEP) for persons bitten or scratched by raccoons and other terrestrial carnivores when the animal is not available for rabies testing.

#### Rabies and foreign travel

While the majority of cases that required rabies PEP were exposed in King County, 14% were exposed while traveling abroad. The foreign exposures included monkeys and dogs. Follow-up for cases exposed in other countries can be complex for many reasons: rabies PEP initiated outside the U.S. may include the

administration of biologics that are not approved by the U.S. Food and Drug Administration (such as vaccines of nerve tissue origin); the schedule or dosage for PEP may differ from recommendations in the U.S.; and rabies immune globulin (RIG) is not always available. In these situations, Public Health provides recommendations for PEP on a case-by-case basis.

#### Tetanus prophylaxis in wound management

Adults 19-64 years of age who require a tetanus toxoid-containing vaccine as part of wound management should receive Tdap instead of Td if they previously have not received Tdap. If Tdap is not available or was administered previously, Td should be administered. Adults who have never received tetanus and diphtheria toxoid-containing vaccine should receive a series of three vaccinations. The preferred schedule is a dose of Tdap, followed by a dose of Td >4 weeks later, and a second dose of Td 6 to 12 months later. Tdap can substitute for Td for any one of the three doses in the series.

#### Prevention of rabies

Many animal bites and rabies exposures can be avoided. Health care providers can help educate their patients about reducing the risks associated with wild and domestic animals:

- Teach children never to approach or handle unfamiliar animals, wild or domestic, even if they appear friendly.
- Do not handle or feed wild animals.
- Avoid attracting wild animals by tightly covering garbage cans and compost bins tightly, and keeping pet food and food scraps indoors.
- Never adopt or "rescue" wild animals or bring them into your home.
- Keep windows and doors closed, or use tightly-fitting screens over open windows and doors.
- When traveling abroad, avoid contact with animals and be especially careful around dogs in developing countries. Rabies is common among dogs and other animals in parts of Asia, Africa, and Latin America. If planning a trip for an extended period or involving increased exposure to animals, pre-exposure prophylaxis with rabies vaccine maybe recommended. Be sure to seek medical care promptly if bitten by an animal when abroad.
- Keep rabies vaccinations up to date for all dogs, cats, and ferrets.

Additional information on rabies decision trees for assessing the need for PEP is available at: [www.metrokc.gov/health/providers/epidemiology/rabies/](http://www.metrokc.gov/health/providers/epidemiology/rabies/) and [www.cdc.gov/mmwr/PDF/rr/rr4801.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr4801.pdf).

**New Tests for Pertussis and Shiga Toxin Offered by PHSKC Laboratory**

The PHSKC Laboratory is now offering two new tests: *Bordetella pertussis* polymerase chain reaction (PCR) and *E. coli* Shiga toxin enzyme immunoassay (EIA).

The PHSKC Laboratory uses the Cepheid real-time PCR instrument for the detection and identification of specific DNA sequences for *Bordetella pertussis* and *Bordetella parapertussis*. The assay has a sensitivity of 1 to 10 CFU/ml for both *B. pertussis* and *B. parapertussis* and it is also highly specific. Submit two nasopharyngeal specimens collected with polyester swabs on flexible wire shafts, one placed in a sterile tube for PCR and the other stabbed into pertussis transport medium for culture. PCR results are usually available in 1 to 5 working days while culture takes up to 2 weeks.

For *E. coli* Shiga toxin testing, the PHSKC Laboratory uses the Meridian Premier EHEC EIA for detection of Shiga toxin-producing *E. coli* (STEC), including STEC O157:H7 and non-O157 STEC. **Testing for Shiga toxin is the best way to detect all STEC because some STEC O157 and most non-O157 STEC are not detected by culture on selective media typically used for *E. coli*.** For *E. coli* Shiga toxin testing, clinicians should submit stool specimens in transport media. Laboratories may submit specimens of overnight growth in MacConkey broth or GN broth. Test results are usually available in 1 to 5 working days. Laboratories in King County that perform Shiga toxin testing in-house should forward any STEC isolates or positive broths to the PHSKC Laboratory for confirmatory testing. There is no charge for confirmatory testing.

Please call the PHSKC Laboratory at (206) 731-8950 if you have any questions about these tests.

**West Nile Virus Monthly Update**

As of July 24, 2007 there have been no human cases of West Nile Virus (WNV) in Washington State, and no animals, birds or mosquito pools have tested positive. Elsewhere in the U.S., there have been 122 human WNV cases reported including cases from California and Idaho. In Oregon, WNV has been identified in birds but human cases have not been reported. For more information on WNV activity in the U.S. please see [www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm](http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm)

Clinicians should consider WNV in the differential diagnosis of all patients with meningitis and/or encephalitis of unknown etiology during mosquito season, particularly in elderly patients presenting with weakness or acute flaccid paralysis or presumed Guillain-Barré syndrome.

For more WNV information on diagnosis and testing, and other resources, please see: [www.metrokc.gov/health/providers/wnv-clinicians.htm](http://www.metrokc.gov/health/providers/wnv-clinicians.htm)

**Attention We Moved!!**

Public Health's Prevention Division has moved to the New County Office Building, located at: **401 Fifth Ave., Suite 900, Seattle, WA 98104-2333**. The main Communicable Disease Epidemiology & Immunization phone line 206-296-4774 has not changed, but most staff phone numbers have changed. Calls will be redirected for the next three months – please make a note of the new address and phone numbers.

**Disease Reporting**

AIDS/HIV ..... (206) 296-4645  
 STDs..... (206) 731-3954  
 TB ..... (206) 731-4579  
 All Other Notifiable Communicable Diseases (24 hours a day) ..... (206) 296-4774  
 Automated reporting line for conditions not immediately notifiable ..... (206) 296-4782

**Hotlines**

Communicable Disease ..... (206) 296-4949  
 HIV/STD ..... (206) 205-STDS

**Public Health-Seattle & King County**

**Online Resources**

**Home Page:** [www.metrokc.gov/health/](http://www.metrokc.gov/health/)  
**The EPI-LOG:** [www.metrokc.gov/health/providers](http://www.metrokc.gov/health/providers)  
**Communicable Disease listserv (PHSKC INFO-X) at:** [mailman.u.washington.edu/mailman/listinfo/phskc-info-x](mailto:mailman.u.washington.edu/mailman/listinfo/phskc-info-x)

**West Nile Virus Updates and Current Testing Guidelines:**  
[www.metrokc.gov/health/westnile/advisories.htm](http://www.metrokc.gov/health/westnile/advisories.htm)

**Reported Cases of Selected Diseases, Seattle & King County 2007**

	Cases Reported in June		Cases Reported Through June	
	2007	2006	2007	2006
Campylobacteriosis	21	26	98	119
Cryptosporidiosis	0	6	14	15
Chlamydial infections	404	404	2706	2619
Enterohemorrhagic <i>E. coli</i> (non-O157)	0	1	2	1
<i>E. coli</i> O157: H7	2	4	8	10
Giardiasis	11	7	69	56
Gonorrhea	110	170	770	997
<i>Haemophilus influenzae</i> (cases <6 years of age)	0	2	2	2
Hepatitis A	0	2	5	8
Hepatitis B (acute)	1	3	14	8
Hepatitis B (chronic)	65	63	414	407
Hepatitis C (acute)	0	1	4	4
Hepatitis C (chronic, confirmed/probable)	104	125	671	753
Hepatitis C (chronic, possible)	35	16	174	146
Herpes, genital (primary)	45	71	343	408
HIV and AIDS (including simultaneous diagnoses with AIDS)	8	N/A*	188	86*
Measles	0	0	1	0
Meningococcal Disease	2	1	4	5
Mumps	0	0	3	2
Pertussis	12	5	32	65
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	26	22	121	84
Shigellosis	3	3	27	18
Syphilis	11	14	71	117
Syphilis, congenital	0	0	0	0
Syphilis, late	4	4	34	36
Tuberculosis	5	8	72	57

\*In June 2006 a large number of HIV cases were removed from King County totals after completing interstate duplication activities. These cases were initially diagnosed in other states.

\*\*Due to reporting and counting delays, the number of cases listed may not reflect actual case burden during the month

The *EPI-LOG* is available in alternate formats upon request.