

# Bite Reporting and Rabies Control FAQ

A Manual for Animal Control Agencies and Shelters

By Veterinary Public Health (2019)



# Let's keep in touch!

Los Angeles County Department of Public Health  
Veterinary Public Health



**Veterinarian on call:** Monday-Friday, 8am-5pm

Call us with your questions about rabies, bite reporting, animal diseases, disease reporting, etc.

**Address:** 313 N. Figueroa St., Room 1127, Los Angeles CA 90012

**Phone:** 213-288-7060

**Fax:** 213-481-2375

**Email:** [vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov)

**Website:** <http://publichealth.lacounty.gov/vet>

Bookmark this page for quick access to all reporting forms: [publichealth.lacounty.gov/vet/Forms.htm](http://publichealth.lacounty.gov/vet/Forms.htm)

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# VETERINARY PUBLIC HEALTH-RABIES CONTROL PROGRAM

TEL: (213)-288-7060

Email to: [vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov)

[publichealth.lacounty.gov/vet](http://publichealth.lacounty.gov/vet)



COUNTY OF LOS ANGELES  
**Public Health**

## ANIMAL CONTROL AGENCIES

Use this form to report animals suspected of being rabid, even if no bite occurred. If there was no bite, write "None" in the PERSON BITTEN section.

PERSON BITTEN			
Victim name (last and first)		Date of Birth	Address (number, street, city and zip)
Victim phone number		Reported by:	Reporter phone number
Date bitten	Time bitten	Address where bitten (if no address make sure to put city and zip code)	Body location bitten
How bite occurred (explain)			
Date Treated	Hospitalized <input type="checkbox"/> YES <input type="checkbox"/> NO	Treated by	Phone number
Type of treatment			
ANIMAL			
Owner Name (last and first)		Address (number, street city and zip)	
Phone Number	Type of animal <input type="checkbox"/> Dog Breed _____ <input type="checkbox"/> Cat Breed _____ <input type="checkbox"/> Other _____		Description of animal (sex, color)
Animal Impounded <input type="checkbox"/> YES <input type="checkbox"/> NO	Animal Shelter	Cage #	Impound #
Was animal taken to a clinic for treatment <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, provide clinic address in this space.	
Current Rabies Vaccination? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Vaccinated	Animal sterilized? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not verified	
Animal licensed? <input type="checkbox"/> Yes <input type="checkbox"/> No	License number	Expiration date	City or county licensed in
Animal Died? <input type="checkbox"/> Yes <input type="checkbox"/> No	Euthanized? <input type="checkbox"/> Yes <input type="checkbox"/> No Date _____	If Euthanized, give reason:	
Specimen prepared and ready for rabies testing? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable			
Remarks:			
Agency taking report:			
Date	Time	Faxed: <input type="checkbox"/> yes <input type="checkbox"/> No	Initials





# VETERINARY PUBLIC HEALTH – RABIES CONTROL PROGRAM

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[publichealth.lacounty.gov/vet](http://publichealth.lacounty.gov/vet)



COUNTY OF LOS ANGELES  
**Public Health**

## DOMESTIC ANIMAL vs. WILD MAMMAL INCIDENT REPORT FORM

DOMESTIC ANIMAL – PET INFORMATION					
Owner last name		Owner first name		Owner address. Number and street City and zip code	
Owner area code & phone		Species <input type="checkbox"/> Dog <input type="checkbox"/> Cat		Breed Sex Age	
Date bitten	Time bitten	Reported by			Reporter area code & phone number
Address where bitten. Number and street			City and zip code		Type of injury to domestic animal
Animal vaccinated prior to contact with wildlife? <input type="checkbox"/> Yes <input type="checkbox"/> No		Date vaccinated prior to contact with wildlife:		Animal vaccinated after coming into contact with wildlife? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date vaccinated after coming into contact with wildlife:		Animal Shelter		Impound # Was animal euthanized? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Domestic animal impounded? <input type="checkbox"/> Yes <input type="checkbox"/> No		Name of Veterinary Hospital		Address, city and zip	
Was animal taken to vet? <input type="checkbox"/> Yes <input type="checkbox"/> No		Current location of animal: Home address Veterinary clinic listed above Other _____			
WILDLIFE INFORMATION (animals other than dog or cat)					
Type of wild animal <input type="checkbox"/> Coyote <input type="checkbox"/> Skunk <input type="checkbox"/> Raccoon <input type="checkbox"/> Bat <input type="checkbox"/> Other (explain)			Wild animal disposition: <input type="checkbox"/> Left area/not located <input type="checkbox"/> Appeared sick <input type="checkbox"/> Captured/destroyed/died		
Wild animal specimen prepared for rabies testing? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable		Location of wild animal specimen (clinic or shelter)		Date euthanized	Time
Veterinary Clinic or Animal Control Agency taking report:			Impound# of wild animal (if applicable)		
Address of Veterinary Clinic or Animal Control Agency					
<b>Comments:</b>					
Submit a copy of the animal's rabies certificate(s), if available					
Report by:			Date taken:	Initials Faxed by:	Date:







**COUNTY OF LOS ANGELES - DEPARTMENT OF PUBLIC HEALTH  
VETERINARY PUBLIC HEALTH PROGRAM**

313 N. Figueroa St, #1127, Los Angeles, CA 90012  
Tel: (213) 288-7060 email: vet@ph.lacounty.gov  
Hours: Monday - Friday 8am to 5pm  
website: www.publichealth.lacounty.gov/vet



## BAT SUBMISSION FORM

**INSTRUCTIONS:**

- All bats submitted to animal shelters/veterinary clinics must be reported to Public Health immediately. Complete form with as much information as possible.
- DO NOT DECAPITATE bat specimen.
- Refrigerate bat after it is deceased. DO NOT FREEZE.

1. **Reporting Agency.** Shelter/Clinic Name \_\_\_\_\_

Phone \_\_\_\_\_ Date bat reported to Public Health \_\_\_\_\_

Staff member / ACO \_\_\_\_\_ Bat Impound # \_\_\_\_\_

2. **Person who found the bat.** Name \_\_\_\_\_ Phone \_\_\_\_\_

3. **When / where was the bat found?** Date bat found \_\_\_\_\_

Name of business (if applicable) \_\_\_\_\_

Address \_\_\_\_\_

Type of location where bat found (check one):

- Home     Park     Camp  
 Business     School     Other: \_\_\_\_\_

4. **Details of bat encounter.** Describe how the bat was found, and where on the property \_\_\_\_\_

Was the bat found (check one)  Indoors\* or  Outdoors?

Time of capture/pickup \_\_\_\_\_ Method used to capture bat \_\_\_\_\_

When captured, was the bat (check one)  Alive\*\* or  Dead?

5. **Contact with bat.** Did any people or animals have potential physical contact with bat? (check one)  Yes\*  No  Unknown

*\*List all persons and pets that had direct contact with the bat or that were indoors with the bat.*

Names:	Addresses:	Phone:

\*\*List any shelter/clinic staff who had contact with the bat (e.g. during euthanasia, if applicable)

Name(s): \_\_\_\_\_ Phone: \_\_\_\_\_



# Need more forms?

All VPH reporting forms can be found online in fillable PDF format. Save time by typing in the fields, then email directly to [vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov).

Bookmark this page for quick access to all reporting forms: [publichealth.lacounty.gov/vet/Forms.htm](http://publichealth.lacounty.gov/vet/Forms.htm)

**\*\*\*Please note - all of the forms were updated in 2019. Discard all previous versions of the forms and ensure all staff are using the forms from the website or in this manual.\*\*\***



# EXAMPLE OF A COMPLETED FORM - DOG BITE TO HUMAN - HOME QUARANTINE



## VETERINARY PUBLIC HEALTH-RABIES CONTROL PROGRAM

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[publichealth.lacounty.gov/vet](http://publichealth.lacounty.gov/vet)



COUNTY OF LOS ANGELES  
**Public Health**

### ANIMAL CONTROL AGENCIES

Use this form to report animals suspected of being rabid, even if no bite occurred. If there was no bite, write "None" in the PERSON BITTEN section.

PERSON BITTEN				
Victim name (last and first) <b>Doe, Jane</b>		Date of Birth <b>7/4/2010</b>	Address (number, street, city and zip) <b>1234 Americana St, Los Angeles, CA 90012</b>	
Victim phone number <b>323-555-0000</b>		Reported by: <b>Mother - Jennifer Doe</b>		Reporter phone number <b>323-555-0000</b>
Date bitten <b>10/2/2019</b>	Time bitten <b>9am</b>	Address where bitten (if no address make sure to put city and zip code) <b>1234 Americana St, Los Angeles, CA 90012</b>		Body location bitten <b>Face</b>
How bite occurred (explain) <b>Victim was playing with dog unsupervised and the dog lunged and bit her in the face.</b>				
Date Treated <b>10/2/2019</b>	Hospitalized <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Treated by <b>Kaiser Permanente Los Angeles</b>		Phone number <b>213-111-2222</b>
Type of treatment <b>Wound care, stitches</b>				
ANIMAL				
Owner Name (last and first) <b>Doe, Jennifer</b>		Address (number, street city and zip) <b>1234 Americana St, Los Angeles, CA 90012</b>		
Phone Number <b>323-555-0000</b>	Type of animal <input checked="" type="checkbox"/> Dog Breed <b>Chihuahua</b> <input type="checkbox"/> Cat Breed _____ <input type="checkbox"/> Other _____		Description of animal (sex, color) <b>Female, White</b>	
Animal Impounded <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Animal Shelter		Cage #	Impound #
Was animal taken to a clinic for treatment <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, provide clinic address in this space.		
Current Rabies Vaccination? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date Vaccinated <b>8/7/2018</b>	Animal sterilized? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not verified	
Animal licensed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		License number <b>Y2468</b>	Expiration date <b>6/30/2020</b>	City or county licensed in <b>LACDACC</b>
Animal Died? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Euthanized? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date _____		If Euthanized, give reason: <b>N/A</b>	
Specimen prepared and ready for rabies testing? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not applicable				
Remarks:				
Agency taking report: <b>LACDACC Baldwin Park</b>				
Date <b>10/3/2019</b>		Time <b>10am</b>		Faxed: <input type="checkbox"/> yes <input checked="" type="checkbox"/> No
				Initials <b>MJ</b>



# EXAMPLE OF A COMPLETED FORM - DOG BITE TO HUMAN - DOG IMPOUNDED AT SHELTER



## VETERINARY PUBLIC HEALTH-RABIES CONTROL PROGRAM

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[publichealth.lacounty.gov/vet](http://publichealth.lacounty.gov/vet)



COUNTY OF LOS ANGELES  
Public Health

### ANIMAL CONTROL AGENCIES

Use this form to report animals suspected of being rabid, even if no bite occurred. If there was no bite, write "None" in the PERSON BITTEN section.

PERSON BITTEN				
Victim name (last and first) <b>Doe, John</b>		Date of Birth 5/15/2000	Address (number, street, city and zip) 5555 Alphabet Ln, Downey, CA 90242	
Victim phone number 562-444-5555		Reported by: <b>Self</b>		Reporter phone number 562-444-5555
Date bitten 10/2/19	Time bitten 10pm	Address where bitten (if no address make sure to put city and zip code) 4321 Muffin Ln, Downey, CA 90242		Body location bitten Right hand
How bite occurred (explain) Victim tried to pick up the dog who was hit by a car. The dog was painful and bit his hand.				
Date Treated 10/2/19	Hospitalized <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Treated by Kaiser Permanente Downey ER	Phone number 562-111-0000
Type of treatment <b>Wound care</b>				
ANIMAL				
Owner Name (last and first) <b>Stray</b>			Address (number, street city and zip)	
Phone Number		Type of animal <input checked="" type="checkbox"/> Dog Breed German Shepherd <input type="checkbox"/> Cat Breed _____ <input type="checkbox"/> Other _____		Description of animal (sex, color) <b>Male, Brn/black</b>
Animal Impounded <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Animal Shelter <b>Downey</b>		Cage # <b>Q143</b>
Impond # <b>A1897654</b>				
Was animal taken to a clinic for treatment <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, provide clinic address in this space. <b>Downey Veterinary Clinic ER</b>		
Current Rabies Vaccination? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Date Vaccinated		Animal sterilized? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not verified
Animal licensed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		License number		Expiration date
City or county licensed in				
Animal Died? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Euthanized? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date <b>10/2/19</b>		If Euthanized, give reason: <b>Severe injuries from HBC</b>
Specimen prepared and ready for rabies testing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable				
Remarks: Dog was euthanized at Downey Vet Clinic and then transported to LACDACC Downey. Specimen is decapped and in VPH fridge.				
Agency taking report: <b>Downey</b>				
Date <b>10/3/19</b>		Time <b>8am</b>		Faxed: <input type="checkbox"/> yes <input checked="" type="checkbox"/> No
Initials <b>MJ (#444)</b>				



**EXAMPLE OF A COMPLETED FORM - RACCOON VS. CAT - HOME QUARANTINE  
- RACCOON DIED AND IMPOUNDED/PREPARED FOR RABIES TESTING**



**VETERINARY PUBLIC HEALTH – RABIES CONTROL PROGRAM**

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COUNTY OF LOS ANGELES  
**Public Health**

**DOMESTIC ANIMAL vs. WILD MAMMAL  
INCIDENT REPORT FORM**

DOMESTIC ANIMAL – PET INFORMATION					
Owner last name <b>Smith</b>		Owner first name <b>Jeff</b>		Owner address. Number and street <b>4567 Candy Ln, Palmdale, CA 93550</b>	
City and zip code		Species <input type="checkbox"/> Dog <input checked="" type="checkbox"/> Cat		Breed <b>DSH</b>	Sex <b>M</b>
Age <b>5 yrs</b>		Date bitten <b>10/5/2019</b>	Time bitten <b>10am</b>	Reporter area code & phone number <b>661-444-5555</b>	
Reported by <b>Owner</b>		Address where bitten. Number and street <b>4567 Candy Ln, Palmdale, CA 93550</b>		City and zip code <b>93550</b>	
Type of injury to domestic animal <b>Wounds on body</b>		Animal vaccinated prior to contact with wildlife? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date vaccinated prior to contact with wildlife: <b>6/20/2017 (3 yrs)</b>	
Animal vaccinated after coming into contact with wildlife? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date vaccinated after coming into contact with wildlife: <b>10/5/2019</b>		Domestic animal impounded? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Animal Shelter		Impound #		Was animal euthanized? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Was animal taken to vet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Name of Veterinary Hospital <b>Palmdale Vet Clinic</b>		Address, city and zip <b>4880 Lucky Ave, Palmdale. CA 93350</b>	
Current location of animal: <input checked="" type="checkbox"/> Home address <input type="checkbox"/> Veterinary clinic listed above <input type="checkbox"/> Other _____					
WILD LIFE INFORMATION (animals other than dog or cat)					
Type of wild animal <input type="checkbox"/> Coyote <input type="checkbox"/> Skunk <input checked="" type="checkbox"/> Raccoon <input type="checkbox"/> Bat <input type="checkbox"/> Other (explain)			Wild animal disposition: <input type="checkbox"/> Left area/not located <input type="checkbox"/> Appeared sick <input checked="" type="checkbox"/> Captured/destroyed/died		
Wild animal specimen prepared for rabies testing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable		Location of wild animal specimen (clinic or shelter) <b>Palmdale shelter</b>		Date euthanized	Time
Veterinary Clinic or Animal Control Agency taking report: <b>Palmdale shelter</b>		Impound# of wild animal (if applicable) <b>A6618877</b>			
Address of Veterinary Clinic or Animal Control Agency <b>38550 Sierra Hwy, Palmdale 93550</b>					
<b>Comments:</b> Cat killed skunk during altercation. Skunk impounded and decapped - in VPH fridge.					
Submit a copy of the animal's rabies certificate(s), if available					
Report by: <b>ACO MJ #444</b>		Date taken: <b>10/5/2019</b>		Initials <b>MJ</b> Faxed by:	
				Date: <b>10/5/2019</b>	



**2013**





**\*\*EXAMPLE OF A COMPLETED FORM\*\***

**COUNTY OF LOS ANGELES - DEPARTMENT OF PUBLIC HEALTH  
VETERINARY PUBLIC HEALTH PROGRAM**

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**BAT SUBMISSION FORM**

**INSTRUCTIONS:**

- All bats submitted to animal shelters/veterinary clinics must be reported to Public Health immediately. Complete form with as much information as possible.
- DO NOT DECAPITATE bat specimen.
- Refrigerate bat after it is deceased. DO NOT FREEZE.

**\*\*EXAMPLE OF A COMPLETED FORM - BAT INSIDE OF A HOUSE WITH 2 PEOPLE AND 2 DOGS INSIDE**

- Reporting Agency.** Shelter/Clinic Name Castaic  
Phone 818-000-0000 Date bat reported to Public Health 7/4/2019  
Staff member / ACO ACO Tom #007 Bat Impound # A1888911
- Person who found the bat.** Name Bruce Wayne Phone 818-111-1111
- When / where was the bat found?** Date bat found 7/3/2019  
Name of business (if applicable) n/a  
Address 123456 Park Ave, Santa Clarita, 91384  
Type of location where bat found (check one):  
 Home     Park     Camp  
 Business     School     Other: \_\_\_\_\_
- Details of bat encounter.** Describe how the bat was found, and where on the property Bat was found clinging to the wall of the guest bedroom in the morning and was not seen entering.  
Was the bat found (check one)  Indoors\* or  Outdoors?  
Time of capture/pickup 8am Method used to capture bat Snake tongs, thick gloves, bucket  
When captured, was the bat (check one)  Alive\*\* or  Dead?
- Contact with bat.** Did any people or animals have potential physical contact with bat? (check one)  Yes\*     No     Unknown

*\*List all persons and pets that had direct contact with the bat or that were indoors with the bat.*

Names:	Addresses:	Phone:
Jennifer Doe	123456 Park Ave, Santa Clarita, 91384	818-222-2222
Jane Smith (friend staying over)	7890 Elm St, San Francisco, 91980	909-333-3333
2 dogs "Jack" & "Jill" - Dobermans - sleep inside the house	123456 Park Ave, Santa Clarita, 91384	Owner - Jennifer - 818-222-2222

**\*\*List any shelter/clinic staff who had contact with the bat (e.g. during euthanasia, if applicable)**

Name(s): Dr. Jae euthanized bat at shelter Phone: 213-288-7060



**COUNTY OF LOS ANGELES - DEPARTMENT OF PUBLIC HEALTH  
VETERINARY PUBLIC HEALTH PROGRAM**

**VPH/Shelter Rabies Control and Specimen Communication Logs**

SHELTER STAFF LOG							VPH STAFF ONLY		
Date	Shelter Staff Name	Impound Number	Impound Date	Species	Specimen prepared for rabies testing	Bite Report emailed to VPH	Date of pick up by VPH	VPH Staff Initials	VPH Site Visits
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only
				<input type="checkbox"/> Dog <input type="checkbox"/> Bird _____ <input type="checkbox"/> Cat <input type="checkbox"/> Other _____ <input type="checkbox"/> Bat	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> VPH Site Visit Only



# Bite Reporting and Rabies Control

## POINTS TO REMEMBER

- **By law, the following *must* be reported to VPH immediately:**
  - **Animal bites to humans (except rodents, rabbits, birds, reptiles)**
  - **Domestic animal bitten by wild mammal**
  - **All potential or confirmed bat exposures to humans or animals**
  - **Animals suspected of being rabid**
- **Teach your staff how to properly submit a specimen for rabies testing**
- **Booster rabies vaccinations in pets exposed to wildlife (protocol below)**

## **BACKGROUND**

In the 1920s-1940s, hundreds of rabid dogs were diagnosed each year in LA County. The risk of rabies from dogs and cats is now far lower because of widespread vaccination and licensing of pets. However, rabies persists locally in bats. Bats are the main carrier of rabies in Southern California. Skunk variants of rabies are currently found in Santa Barbara County and Northern California. Bats, skunks, foxes, raccoons, coyotes, **and even opossums** are all considered potential sources of rabies, based on California and national rabies data. In addition, each year many dogs are imported into the US from countries where the canine variant of rabies still exists (see pg 20).

## **REPORTING BITES AND RABIES SUSPECT ANIMALS**

- **Anyone with knowledge of a bite is legally mandated to report to VPH**, including veterinarians and their staff. Report the following to VPH immediately:
  - Mammals, domestic or wild, that bite a human (see form on pg 58)
  - Domestic mammals (pets or livestock) that come into contact with wildlife (see form on pg 59)
  - Neurologic animals suspected of being rabid (use form on pg 58)
  - Bites from rabbits, squirrels, rats, mice, gophers and other rodents are NOT reportable

## **RABIES VACCINATION**

- The State of California mandates rabies vaccination for dogs, but not for cats. However, some localities require rabies vaccination and/or licensing of cats. (See pg 24).
- The *minimum* age dogs may receive their first rabies vaccination in CA is **three** months of age.



## QUARANTINE

- Quarantines of owned animals are usually overseen by VPH at the animal's home
- Quarantines may be completed at shelters or veterinary practices (costs may be incurred at owner's expense)
- Location transfers of quarantined animals are not allowed except in rare circumstances and with prior approval from VPH.

## QUARANTINE - MAMMALS BITING PEOPLE

- Any DOMESTIC animal that bit a person must be quarantined and observed for clinical signs of rabies by VPH staff. This is true regardless of the rabies vaccination status of the biting animal. The animal is under quarantine until VPH staff issues a Quarantine Release Notice.
  - For specific quarantine periods, please see the summary flowchart (pg 16)
  - **If animal bit a human DO NOT vaccinate animal for rabies during the quarantine period**
- Domestic biting animals **are not to be euthanized until after the quarantine period** without prior permission from VPH staff
- If the domestic animal is gravely ill or injured, it may be euthanized during the quarantine period for humane reasons without prior permission. **In such cases, the head of the animal must be submitted appropriately for rabies testing** (see pg 18).
- Captive exotic mammals that have bitten a human are quarantined at their facility for at least 30 days (e.g. zoo, marine mammals, etc.)

## QUARANTINE - DOMESTIC MAMMALS BIT BY WILDLIFE

- Whenever possible, the wild animal should be humanely euthanized, prepared and submitted to VPH for rabies testing
  - If the wild mammal tests negative for rabies, no quarantine of the domestic animal is required.
  - If the wild mammal is not tested or tests positive for rabies, the domestic animal must be quarantined.
- Quarantine length of the animal depends on its rabies vaccine status at the time of the bite.
  - For specific quarantine periods, please see summary flowchart (pg 17)
  - **If domestic mammal is bit by wildlife and is current on rabies vaccination at the time of the bite, booster immediately, even if the rabies vaccine is not due**
  - **If domestic mammal is bit by wildlife and is NOT current on rabies vaccination at the time of the bite, VPH recommends vaccinating immediately post-bite**
  - **If domestic mammal is bit by wildlife and has NEVER had a rabies vaccination, VPH recommends the Texas protocol: vaccinate immediately after bite, again at week 3 and again at week 8 post-bite.**



## NEUROLOGIC ANIMAL SUSPECTED OF BEING RABID

- Isolate the animal and contact our office immediately
- REPORT incident using a Bite Report Form (use form on pg 58 – even if no bite occurred)

## RABIES TESTING

- Rabies testing is conducted by the Public Health Lab
- For rabies specimen preparation instructions see pg 18
- Specimen preparation, including decapitation, must be performed by the facility submitting the sample. Only rabies-vaccinated staff should perform decapitations. Exception: Bats are NOT to be decapitated.
- Please complete the appropriate form and call our office to arrange a specimen pickup for rabies testing
- Whenever possible, any WILD mammal that has bitten a human shall be humanely euthanized, prepared and submitted for rabies testing.

## BATS

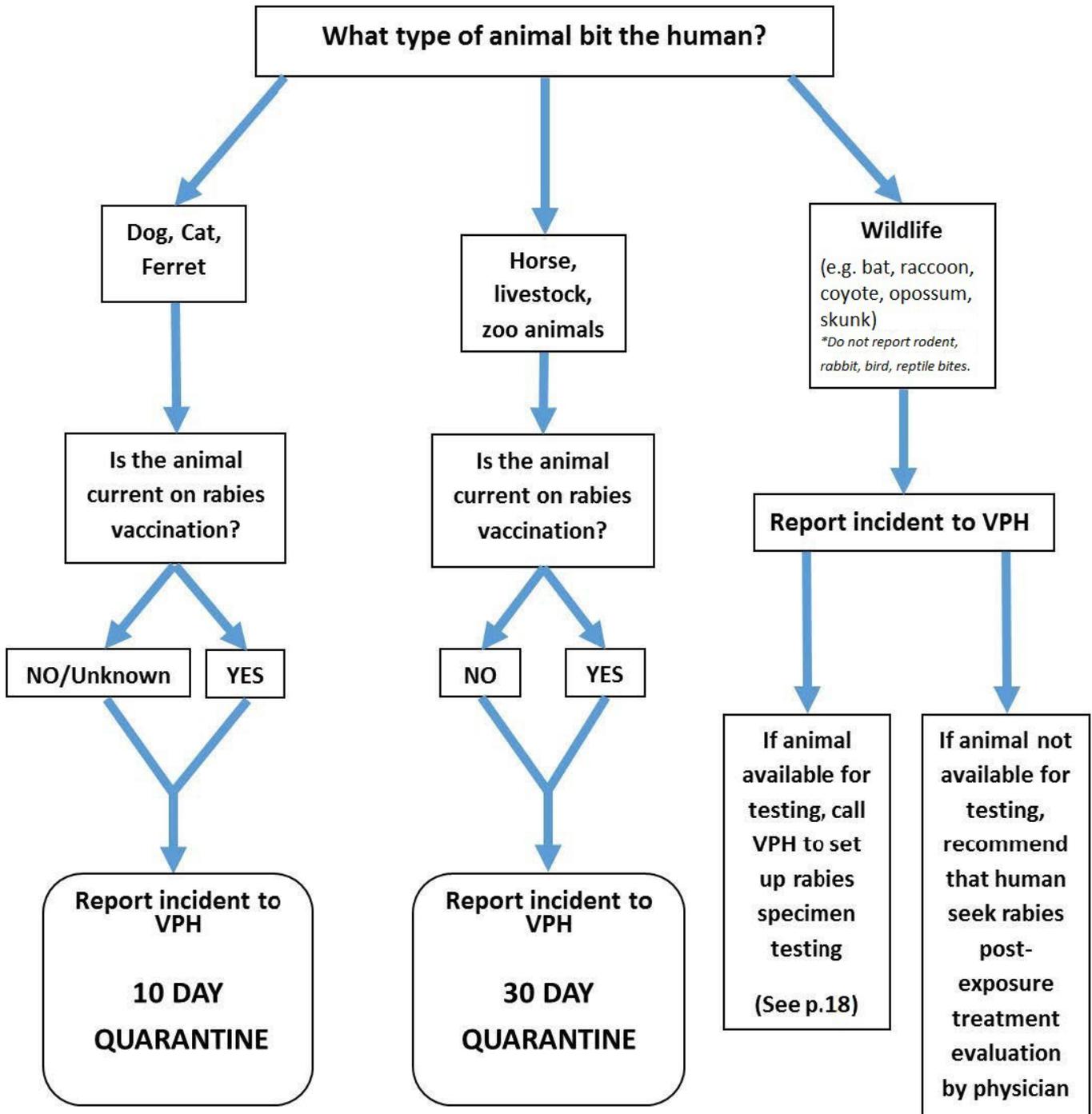
- Any bat that may have had a potential exposure to humans or animals must be reported and tested (e.g. on sidewalk, found in public area, outside a home or business)
- If a bat is found inside the home, near a child or sleeping person it must be reported and tested for rabies, even if a bite is not visualized (see form on pg 60)
- Bites from bats can be very small, painless and go unnoticed.
- If clients call to report a bat or bring in a bat to your clinic – please collect their name and contact information because VPH will need to speak with them. Then provide them with the following information:
  - If you see a dead, sick or injured bat OR there is a bat that may have bitten a person or animal, **do not touch it or release it. Call your local animal control agency for assistance (see pg 19 for list of local animal control agencies).**

## RESOURCES

California Compendium of Rabies Control and Prevention, 2012 (see page 65)

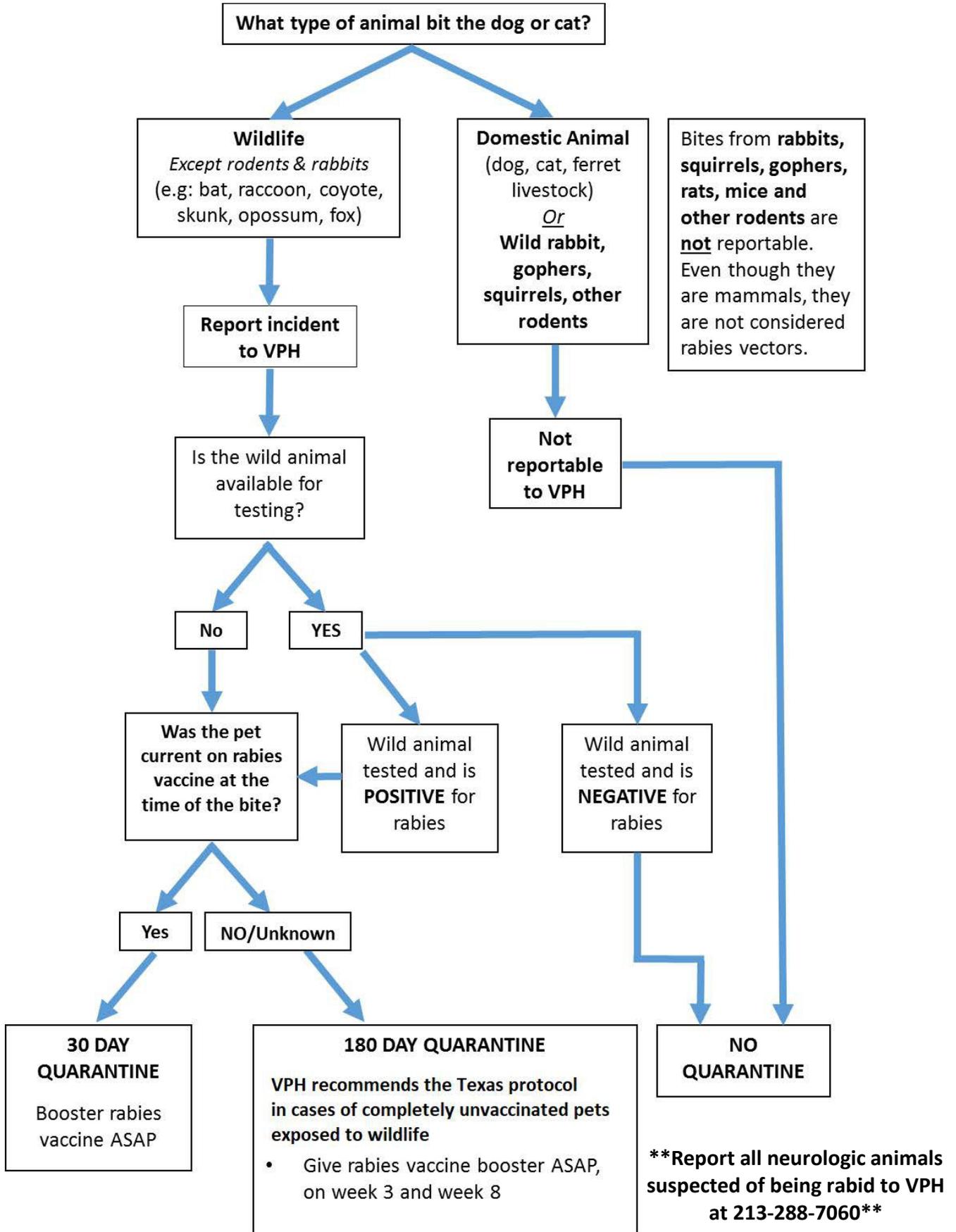


# Human bitten by an animal



- Healthy animals that bit a human are not to be euthanized during the quarantine period.
- Gravely ill or injured animals that are euthanized during the quarantine period due to humane reasons must be tested for rabies.
- If a pet bit a human and was not up to date on the rabies vaccine at the time of the bite, do NOT vaccinate the pet until after the quarantine period.
- Bites from rodents, rabbits, birds and reptiles are not reportable to VPH
- Report all neurologic animals suspected for being rabid to VPH at (213) 288-7060

# Domestic animal bitten by another mammal





# **PREPARING A SPECIMEN FOR RABIES TESTING**

Note: Healthy animals may not be euthanized during the quarantine period.

Specimens that are inappropriately packaged or missing the appropriate reporting form will be rejected from the Public Health Lab. It will be the responsibility of the veterinary clinic to pick up the specimen and resubmit it immediately.

## **STEP 1 Dogs/cats/wildlife must be decapitated, except bats**

- Do not decapitate a bat! Submit it as a whole body.

## **STEP 2 Apply flea/tick spray to the specimen**

## **STEP 3 Specimen must be wrapped in absorbent paper and double-bagged**

- Only one specimen per bag (do not place more than one bat in a bag)
- The specimen and blood should not be visible through the bag
- Place into a box or an opaque container

## **STEP 4 Securely affix appropriate reporting form to the specimen container**

- Impound cards or cage cards are not acceptable
- Do not leave paperwork resting on top or beneath a specimen

## **STEP 5 Place specimen into the fridge (do not freeze)**

- Do not place specimens next to food/vaccines
- Check the fridge temperature to ensure that it is working (unrefrigerated/decomposed specimens may be untestable)

## **STEP 6 Email/fax the reporting form to VPH (Note ‘Pick up’ in the top corner)**

## **STEP 7 Call VPH for pick-up**

- If you notice a specimen in the fridge for a few days, please call again for pick-up
- **Phone – 213-288-7060**
- **Email – vet@ph.lacounty.gov**
- **Fax – 213-481-2375**





## **Specimens for Rabies Testing**

### **Why do I have to decapitate specimens for rabies testing?**

Never decapitate a bat – always submit the whole body for testing. Do not handle a bat anymore than is necessary.

Specimens needs to be decapitated because the Public Health Lab does not have the capacity to store or handle entire bodies. Only the brain is tested for rabies.

### **How do I properly prepare a specimen for rabies testing?**

Follow the step-by-step process as shown in the document, “Preparing a specimen for rabies testing”.

- Do not store specimens in the freezer
- Specimens go in the VPH fridge, not the general shelter fridge
- If you notice that we haven't picked up a specimen, call us to remind us

### **Can I just attach an impound card to a specimen?**

No. The full bite report or bat submission form must be attached to every rabies specimen in the fridge. Impound cards do not carry the information that VPH needs when testing and relaying the results to affected parties. Securely attach the correct form to the specimen (tape, staple, inside pocket) – do not leave the form resting on top of or below a specimen. An unlabeled specimen in the fridge is not acceptable.



# ANIMAL BITES & RABIES RISK

## Recommendations for Los Angeles County

Not all animal bites need to be reported to the Los Angeles County Department of Public Health. Bites from some animals pose greater risk for rabies infection than others.



### HIGH RISK

#### REPORT TO PUBLIC HEALTH IMMEDIATELY

**BATS: URGENT!**

Report any bite or exposure immediately.

**SICK DOGS, CATS:**

Report bite if animal has abnormal behavior consistent with rabies (aggression, drooling, neurologic trouble).

**FOREIGN DOGS:**

Report if bite occurred in a country where dog rabies exists.

**SICK WILDLIFE:**

Report bite if animal (coyotes, raccoons, skunks) has abnormal behavior consistent with rabies.



### MODERATE RISK

*These are not urgent cases — Report bite online to Vet Public Health.*

**WILDLIFE:** Healthy, with normal behavior (coyotes, raccoons, skunks).



### LOW RISK

*These are not urgent cases — Report bite online to Vet Public Health.*

**LOCAL DOGS, CATS:** Healthy, with normal behavior.



### NOT REPORTABLE

**SQUIRRELS, RABBITS, RODENTS, BIRDS, SNAKES:** Bites from these animals are not reportable because they do not spread rabies.

## REPORTING ANIMAL BITES TO PUBLIC HEALTH

**Phone:** (213)288-7060 - Monday - Friday, 8am-5pm

**Online:** Fill out and submit reporting form at

[www.publichealth.lacounty.gov/vet/biteintro.htm](http://www.publichealth.lacounty.gov/vet/biteintro.htm)

- Always report details about the biting animal, including current location if known.
- If the biting animal is available, quarantine/testing it for rabies will help determine if the victim needs treatment.

The rabies risk in LA County may shift over time. Other counties may have different rabies risks.



# **Rabies and Bite Reporting FAQ**

## **What needs to be reported to VPH?**

These incidents are legally reportable to us:

- Animal bites to humans (except bites from squirrels, rabbits, rodents, birds, reptiles)
- Domestic animal bitten by wild mammal
- Bat exposures to humans/animals – potential or confirmed
- Animals suspected of being rabid

## **What is the best way to get in touch with VPH/ask questions/submit reports/ask for quarantine releases?**

- Call us at 213-288-7060 to speak to someone in person M-F, 8am-5pm. Or email us at [vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov).
- Emails sent directly to one inspector or veterinarian may not be answered if that person is not in the office.

## **Where can I find copies of the reporting forms?**

- Blank forms are found inside this binder and are also available on our website at: <http://publichealth.lacounty.gov/vet/Forms.htm>

## **Who is responsible for reporting bites?**

The law says that anyone with knowledge of a bite should report it.



## REPORTABLE

- **Bites to humans, from:**
  - Dogs
  - Cats
  - Wildlife
  - Ferrets
  - Any mammal... (except if listed in next column)
- **Bites to pets from:**
  - Wildlife
- **Scratches (from tooth) from animals**

## NOT REPORTABLE

- **Bites to humans, from:**
  - Rodents (mice, rats, squirrels,...)
  - Rabbits
  - Non-mammals: birds, snakes, etc.
- **Bites between domestic animals:**
  - Dogs vs dog
  - Cat vs cat
  - Dog vs cat
- **Scratches (from paw) from animals**



## **Animal Bites to Humans**

### **If a rabid animal scratches me, should I be concerned?**

Rabies is spread by bites that penetrate the skin. If a rabid animal scratches you with its tooth, that is considered to be a bite. However if an animal scratches you with its paw/nail, that is not how rabies is transmitted or spread.

### **What should I do when an animal bites me?**

- Wash the wound immediately with soap and water
- Then go seek medical attention if needed
- Report the bite to VPH
- Call VPH with questions about the rabies risk of the incident
- Seek rabies PEP if recommended by VPH/your doctor

### **Are all animal bites reportable?**

All animal bites to humans are reportable except for bites from rodents, squirrels, rabbits, birds and reptiles. Bites from opossums are reportable.

### **If a bite happened more than 10 days ago, do I still need to report it?**

Yes, no matter when the bite happened, all bites are to be reported. Even if the quarantine period has passed.

### **If the victim of the bite is a minor/child, do I record their information?**

Yes, always put accurate information for the victim. Information about the minor's parent/guardian can be placed in the 'Reporter' field or in the comments.



## **Domestic animals (pets) bitten by wild mammal**

**My dog was not up to date with his rabies vaccination (it was late by just two days) when he got into a fight with a raccoon. How long is his quarantine period?**

Domestic animals bitten by wild mammals that are not up to date with their rabies vaccination at the time of the incident are quarantined for 180 days.

Domestic animals bitten by wild mammals that are up to date with their rabies vaccination at the time of the incident are quarantined for 30 days.

**The dog killed the raccoon during the fight and the raccoon's body is sitting in the owner's yard. What should animal control do?**

If the wild mammal is available for testing, impound the raccoon body, decapitate the specimen and place it into the VPH fridge for pick-up. Attach the domestic v. wild mammal report form to the specimen. Call VPH for pick-up. VPH will have the raccoon specimen tested for rabies. If it comes back rabies negative, the dog does not have to be quarantined. If the raccoon come back rabies positive the dog will be quarantined for 180 days since he was not up to date with his rabies vaccination at the time of the fight.

**I have a stray cat that was bitten by a coyote and needs to complete a 180 day quarantine at the shelter. What are my options?**

If the cat has never had a rabies vaccination before, follow the Texas protocol: Booster the rabies vaccination immediately after the incident, then again 3 weeks post- incident, and again 8 weeks post-incident. After the Texas protocol has been completed, consider Medical Foster of the cat (foster out to a home to complete the remainder of the quarantine). Fill out the appropriate forms then contact VPH. An inspector will ensure the home is suitable for quarantine. The animal remains the property of the shelter and must always be transported by the shelter ONLY. After the quarantine period is complete, the cat can be released to the foster or adopted out.

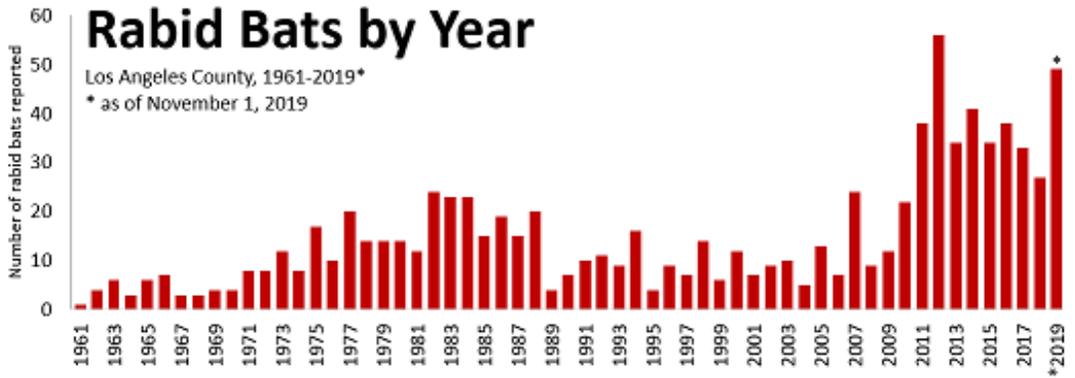
**This owned dog was up to date with his rabies vaccination at the time of the fight with an opossum. The opossum ran away. What should I do?**

1. Fill out the domestic vs wild mammal report form
2. Quarantine the dog for 30 days (at home or at shelter if owner surrenders it)
3. Booster the rabies vaccination after the incident (even in this case where the dog was up to date already).

# Bats and Rabies in Los Angeles County - 2019

Reported rabid bats are generally increasing over the past decades.

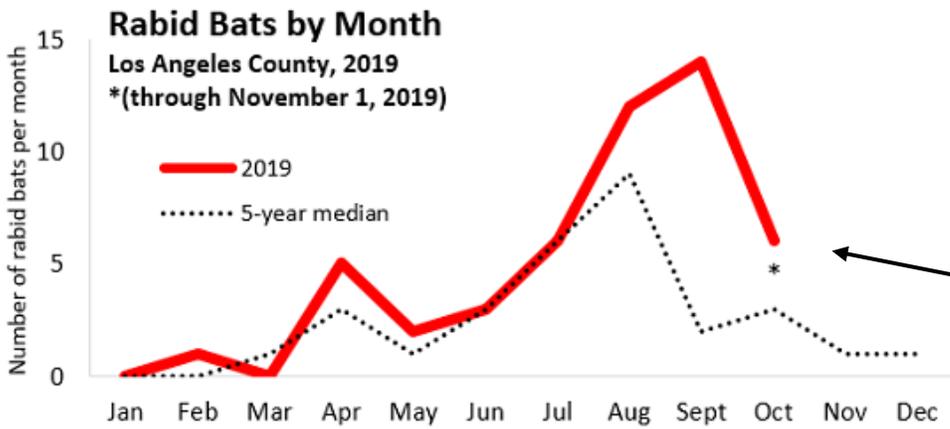
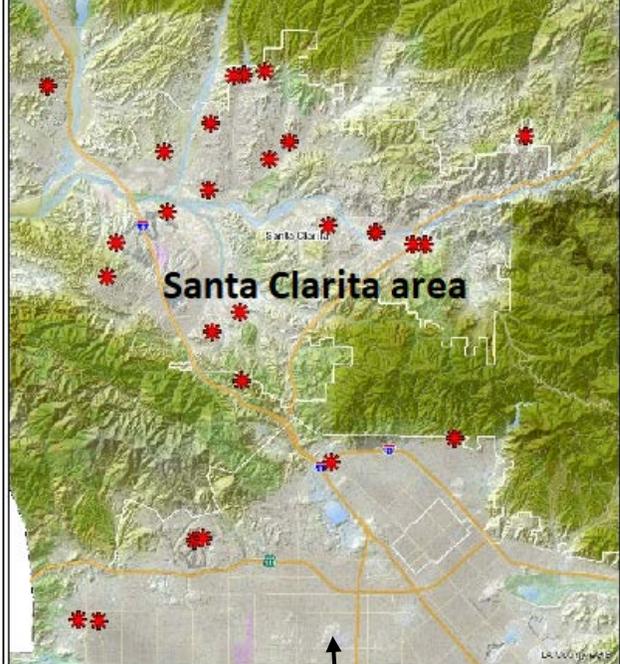
50 rabid bats found in LAC in 2019!



Reported Cases of Bat Rabies, by location where found, Los Angeles County, Jan - Nov 6, 2019



Reported Cases of Bat Rabies, by location where found, Los Angeles County, Jan - Nov 6, 2019



Approximately 1/3 of all rabid bats in LAC are found in the Santa Clarita area.

Increased numbers of rabid bats are found in the summer to early fall.

For up-to-date information about rabid bats in LAC visit: <http://publichealth.lacounty.gov/vet/>



## **Bat Exposures to Humans and Animals**

### **Why are bats so important in terms of rabies?**

Bats are the number one source of rabies in Southern California. An encounter with a bat (finding one inside your house or handling one with bare hands) poses a high risk of contracting rabies in LA County. Pets may also play with or get bitten by bats and contract the disease – then risking the family or humans around that pet. Bat teeth are also very small and a bite may go unnoticed if someone is sleeping or incapacitated. Children may not always report that they found and/or touched a bat. The majority of deaths from rabies in the USA are caused by bat bites and exposures, particularly when a bat is inside the house and a bite was never reported.

### **I received a call that a bat was found inside the house but appears healthy, should I let them release it?**

No. A bat inside a house is a high rabies risk. You cannot tell if a bat has rabies just by observing it. Bats have very small teeth and bites are not always noticeable. Sleeping or incapacitated people or children may not be woken by a bat bite. A full interview should be completed to identify all persons or animals that could have been exposed. The bat should be safely collected by animal control and submitted to VPH for testing. If the bat is rabies negative then no further treatment is needed. If the bat is rabies positive, all people exposed will need rabies treatment, and all animals in the house will need to be quarantined. If rabies treatment is not started in a timely manner, the disease can be fatal.

## **The bat was found dead outside of the house. Should the person just throw it away?**

No. All bats that could have had exposure to people or animals or that are acting abnormally (out during the day time, not moving away from people/animals, sitting on the ground, found dead) should be collected by animal control and submitted to VPH for testing.

## **How should I handle a bat?**

Never handle a bat with bare hands. Use tools, thick gloves or objects to safely move a bat into a box/bucket with a lid. After impounding it at the shelter, +/- humane euthanasia, package it up properly and place it into the VPH fridge immediately. Bats that are not properly refrigerated may be too decomposed for testing.

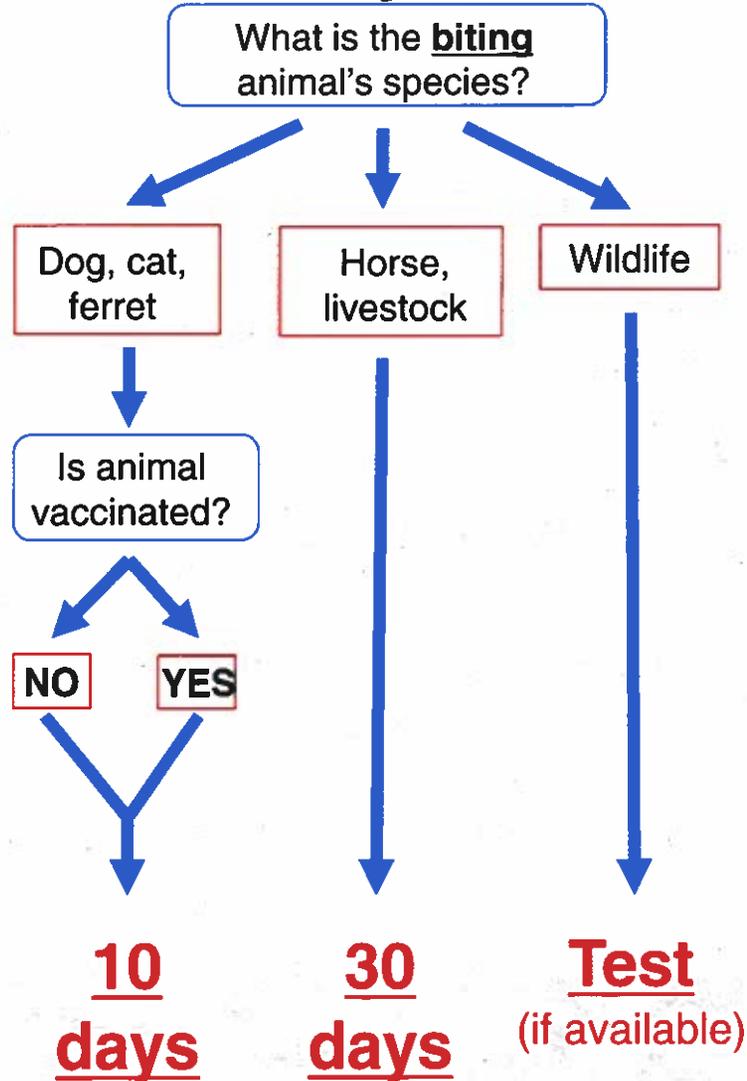
## **Should all bats that people find be tested?**

If a bat is outside and acting normally (flying, active at night) and did not have exposure to humans or animals, it does not need to be tested. Bats are protected wildlife and should not be harassed or harmed. Bats have roosts where the babies reside until they can fly away and leave the roost (usually in October). Often times, bats will roost in a tree or small opening around a house. Bats should never be exterminated since it is illegal to harm them. Instead, if bats are roosting around a home or business, a professional bat exclusion service should be used to exclude (close off) the roosting areas after the babies have flown away. Bats found in houses and those acting abnormally (out during the day, not flying away from humans, not moving on the ground, etc) that could have exposed humans or animals should be tested. Call VPH with questions if you are not sure.

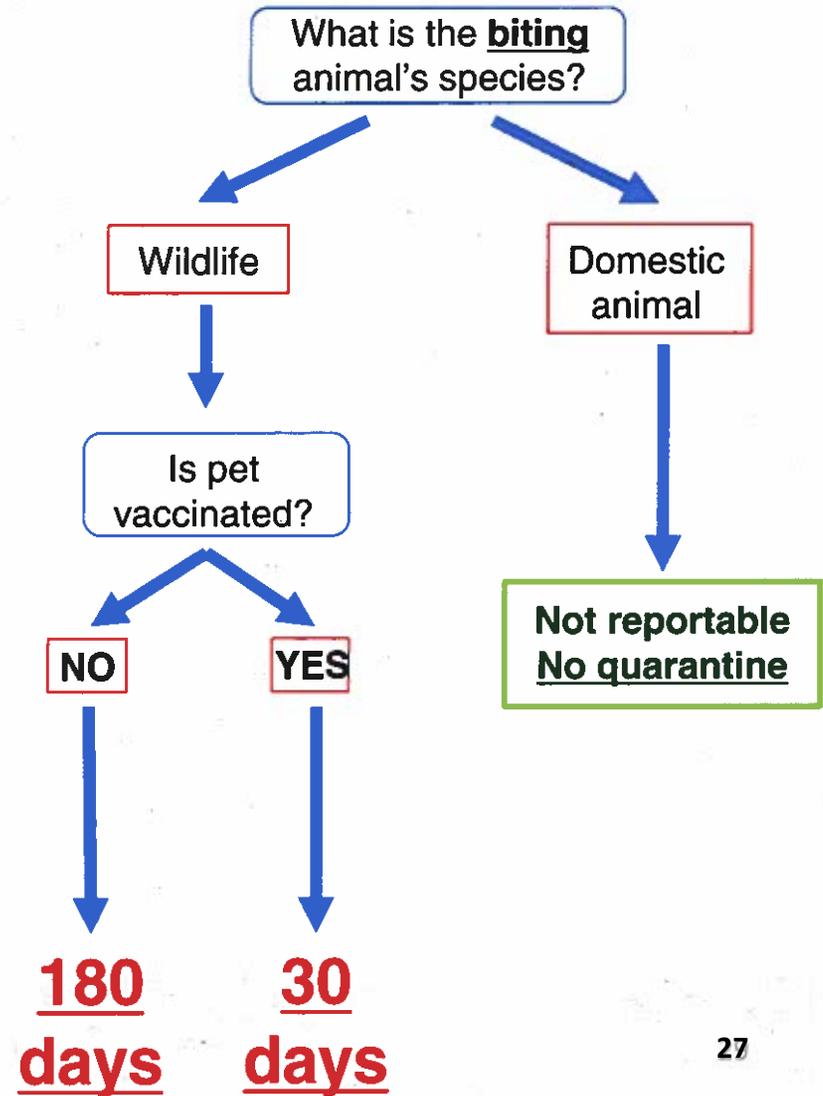
# Animal quarantine lengths made easy



## PERSON bitten by animal



## PET bitten by animal





# **Rabies Quarantine**

## **When does quarantine of an animal start?**

It starts the day of the bite. Even if the day of the bite is a weekend or holiday.

## **Where can animals be quarantined?**

Most quarantines are done at home. Quarantines are done at the shelter if the animal was stray at the time of the bite or is surrendered by the owner.

Quarantines can also be done at a vet clinic while under treatment.

## **How do I know when an animal is released from quarantine?**

The inspector covering your shelter will release it from quarantine either in person, on the phone or by email. If you have questions about an animal under quarantine, call VPH at 213-288-7060.

## **How do I know that an animal is under quarantine?**

A red sign is placed on the kennel to warn others that the animal is under rabies quarantine and should not be handled and should not have access to bite people or other animals.

## **I noticed something odd with a dog/cat under quarantine. What should I do?**

Notify VPH immediately if any of the following happens to an animal under quarantine:

- Animal dies or becomes ill
- Animal is euthanized
- Animal changes location (surrendered animal impounded changing it from home QT to shelter QT)

## **If the dog or cat that bit someone is up to date with their rabies vaccination, do they still have to be quarantined?**

Yes. All animals that bite humans, regardless of rabies vaccination status are to be quarantined. Except for non-reportable cases (birds, reptiles, rodents, rabbits, squirrels).

## **When can I euthanize an animal that bit a human?**

Healthy dogs/cats cannot be euthanized during the 10 day quarantine period after biting a human. VPH must grant permission for cases where the animal is to be euthanized early. Only gravely ill or injured animals may be euthanized during the quarantine period (eg – hit by car) without VPH permission. If the animal dies or is euthanized before the end of quarantine, the specimen must be decapitated and submitted for rabies testing.

## **What is medical foster?**

Some animals that are quarantined for long periods of time (180 days) may be eligible for medical foster (outside of the shelter). Pets should have received a rabies booster or the Texas protocol prior to being fostered out. Remember that fostered animals are still the responsibility of the shelter for transport, and cannot be adopted out until released from quarantine by VPH. See the package in this binder for the applicable forms. Call VPH with questions.

**A stray dog is hit by car and a good Samaritan tries to pick up the dog but gets bit in the process. The dog is impounded by animal control but needs to be euthanized for irremediable suffering. What should I do?**

1. Fill out the animal bite to human reporting form and email to VPH.
2. Be sure to include the info that the dog was euthanized the same day that it bit the person.
3. Decapitate the dog specimen that was euthanized and place into the VPH fridge for pick-up.
4. VPH will test the dog specimen for rabies. If it comes back rabies positive, VPH will contact the victim and let them know to start rabies treatment.

Any animal that dies or is euthanized DURING the quarantine period MUST be tested for rabies.

**A stray cat bit someone that was petting him on the sidewalk. The cat was impounded and the 10 day quarantine was started from the date of the bite. The next day after impound, the cat's owner arrives at the shelter to claim her cat. Can you release this cat to the owner?**

No. Animals under quarantine at the shelter cannot be released until the quarantine has been completed. They cannot be transferred to a home quarantine. A cat may be transferred to a vet clinic for care if needed but must remain at the vet clinic or return to the shelter immediately to finish out the quarantine.





**COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH  
VETERINARY PUBLIC HEALTH PROGRAM  
Tel. (213) 288-7060 Email: vet@ph.lacounty.gov**



**TRANSFER OF QUARANTINE PERMIT APPLICATION**

**SHELTER TO MEDICAL FOSTER FOR PET EXPOSURE 180 DAY QUARANTINE**

Shelter requesting transfer of dog or cat in 180 day quarantine after potentially being exposed to rabies (e.g. wildlife contact) and has completed the required rabies vaccination schedule:

**Animal Shelter Information**

Shelter Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Shelter Manager: \_\_\_\_\_

**Animal To Be Transferred To Medical Foster Location For Remainder Of Quarantine**

Shelter Impound #: \_\_\_\_\_  
VPH Case #: \_\_\_\_\_  
Animal Description (species/breed/sex/color markings): \_\_\_\_\_  
Dog License # and City: \_\_\_\_\_  
Rabies Vaccination Date(s): \_\_\_\_\_  
Date of Proposed Transfer: \_\_\_\_\_

**Medical Foster Location**

Name of Medical Foster Individual: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email: \_\_\_\_\_  
Name of Foster Facility (if applicable): \_\_\_\_\_  
Address Where Animal will be Housed During Entire Remainder of Quarantine: \_\_\_\_\_  
\_\_\_\_\_

I \_\_\_\_\_, the medical foster for which the above stated animal will  
(Medical Foster Name)

continue the established quarantine, understand and agree to the following:

- a) Prior to the transfer of said animal, this facility/home in which the animal will continue the established quarantine will be inspected by Veterinary Public Health staff to ensure that the facility is suitable to medically foster and maintain the established quarantine on said animal.
- b) During the established quarantine and at the end of the quarantine, the facility/home is subject to and will make itself available for multiple announced and unannounced inspections by Veterinary Public Health and the Animal Shelter.
- c) The Animal Shelter is responsible for the proper transportation of the said animal to the new medical foster quarantine location. The medical foster individual is not permitted to transport the animal to and from the Animal Shelter.
- d) Animals transferred to medical foster care facilities remain under the shelters authority during the quarantine period (e.g. transfer of ownership is not allowed).
- e) The designated medical foster individual shall abide by all state and local laws with respect to quarantined animals for rabies observation. This includes:
  - a. Quarantined animals must be confined to the premises indicated above at all times unless the animal must go to a veterinarian for medical care.
  - b. Shall have no contact with any other animal or the public during the quarantine period.
- f) The designated medical foster individual will immediately contact by phone (213-989-7060) and email if after hours ([vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov)) Veterinary Public Health if the health status of the said animal changes anytime during the quarantine period.
- g) At any time if the designated medical foster individual cannot maintain the quarantine on the said animal, that individual will immediately contact Veterinary Public Health and the original Animal Shelter. The Animal Shelter is responsible for transporting the animal back to the original Animal Shelter to complete the established quarantine.
- h) This agreement may not be amended or modified without written approval of Veterinary Public Health management. If any of the above regulations are not followed, the medical foster individual and facility will no longer be approved for medical foster quarantine transfers in the future. In addition, legal action may be taken, depending on the circumstances.

I, \_\_\_\_\_, shelter manager of \_\_\_\_\_  
(Shelter Manager) (Shelter Name)

Understand and agree to the following:

- a) Animals quarantined for 6 months must receive 3 rabies booster vaccines prior to the transfer. Rabies booster should be given at day 0, 3 weeks, and 8 weeks from the day of contact with wildlife. Quarantined animals must be quarantined in the Animal Shelter for a minimum of 10 weeks (2 weeks post the 3<sup>rd</sup> vaccine) to be considered for the option of being transferred to a different facility.
- b) Animals transferred to medical foster care facilities remain under the shelters authority during the quarantine period (e.g. transfer of ownership is not allowed).
- c) The Animal Shelter is responsible for the proper transportation of the said animal to the new quarantine facility.

- d) The Animal Shelter will abide by all state and local laws with respect to quarantined animals for rabies observation.
- e) This agreement may not be amended or modified without written approval of Veterinary Public Health management.
- f) If the new quarantine facility cannot maintain the quarantine or does not abide by the laws and regulations for rabies quarantine animals, this Animal Shelter will be required to return the animal for the remainder of the quarantine period. Depending on the circumstances, further such transfers may no longer be approved for animals at the shelter.

I, \_\_\_\_\_, veterinarian of \_\_\_\_\_  
 (Shelter Veterinarian) (Shelter Name)

Understand and agree to the following:

- a) The quarantined animal has received 3 rabies booster vaccines given at day 0, 3 weeks, and 8 weeks from the day of contact with wildlife.
- b) The quarantined animal has been at the shelter for at least 2 weeks post administration of the 3<sup>rd</sup> rabies vaccine facility (must be at Animal Shelter for a minimum of 10 weeks).
- c) The quarantined animal has been physically examined and is cleared to continue the 6-month quarantine at a medical foster.

\_\_\_\_\_  
 Medical Foster Individual (Print Name)      Medical Foster Individual (Signature)      Date: \_\_\_\_\_

\_\_\_\_\_  
 Animal Shelter Manager (Print Name)      Animal Shelter Manager (Signature)      Date: \_\_\_\_\_

\_\_\_\_\_  
 Shelter Veterinarian (Print Name)      Shelter Veterinarian (Signature)      Date: \_\_\_\_\_

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For Local Health Department Use Only

Location inspection completed by VPH

Approved

Not approved

If not approved, provide reason:

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Veterinary Public Health Program Director Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**\*\*Completion of this checklist does not guarantee approval of a quarantine transfer by Veterinary Public Health. It is the responsibility of the shelter to submit the original application to VPH and wait for notification of approval/denial from VPH before transporting an animal under quarantine.\*\***

Animal ID: \_\_\_\_\_ Animal Name: \_\_\_\_\_ Species: \_\_\_\_\_ Sex: \_\_\_\_\_ Age: \_\_\_\_\_

## **Medical Foster Checklist for Applicant**

- Facility/home will be inspected by Veterinary Public Health prior to transfer and approval
  - Homes not suitable to continue quarantine or medical foster will be denied
- Facility/home will be subject to and available for regular inspection throughout and at the end of quarantine
  - Multiple announced and unannounced inspections by VPH or the shelter may be done
- The shelter is responsible for all transportation of the animal (to and from the medical foster quarantine location)
- The medical foster individual is not permitted to transport the animal to and from the shelter
- Animals transferred to medical foster facilities remain under the shelter's authority (transfer of ownership/adoption is not allowed during quarantine)
- The medical foster individual will abide by all state and local laws with respect to rabies quarantine
- Quarantined animals are confined to the premise at all times unless going to the veterinarian for medical care
- Quarantined animals will have no contact with other animals or the public during the QT period
  - This animal must be the only animal in the house
  - Do not take the animal to dog parks, boarding/doggy daycare, grooming/training facilities, etc.
- Medical foster individual will contact VPH immediately (213-288-7060 or [vet@ph.lacounty.gov](mailto:vet@ph.lacounty.gov) after hours) if the health status of the animal changes at any time during quarantine
- Medical foster will contact VPH immediately if quarantine cannot be maintained on the animal. The shelter will transport the animal back to the original shelter to complete quarantine.
- If any portion of quarantine is violated, the medical foster individual will no longer be approved for quarantine transfers in the future

**\*\*Completion of this checklist does not guarantee approval of a quarantine transfer by Veterinary Public Health. It is the responsibility of the shelter to submit the original application to VPH and wait for notification of approval/denial from VPH before transporting an animal under quarantine.\*\***

## **Medical Foster Checklist for Shelter**

- 3 rabies boosters given prior to transfer
  - 0 weeks
  - 3 weeks
  - 8 weeks from the day of contact with wildlife/bite from wildlife
- Complete 10 weeks of quarantine at the shelter (2 weeks past the 3<sup>rd</sup> rabies vaccine)
- Transfer of ownership not allowed during quarantine (animal remains under shelter ownership)
- Transportation to and from shelter is the responsibility of the shelter (never the medical foster individual)
- Shelter will abide by all local and state laws with respect to rabies quarantine
- If the medical foster location is not suitable or does not maintain quarantine, the shelter is required to transport and return the animal back to the shelter for the remainder of quarantine

## **Medical Foster Checklist for Veterinarian**

- Has received 3 rabies booster vaccinations
  - 0 week post-bite \_\_\_\_\_
  - 3 weeks post-bite \_\_\_\_\_
  - 8 weeks post-bite \_\_\_\_\_
- 2 weeks has passed since the 3<sup>rd</sup> rabies vaccine (10 weeks total quarantined at shelter)
- Animal has been physically examined by veterinarian and is fit to be transferred

# When to vaccinate the animal for rabies?



## PERSON

### bitten by animal

What is the **biting** animal's species?

Dog, cat, ferret

Horse, livestock

Wildlife

Is animal vaccinated?

NO

YES

**DO NOT VACCINATE FOR RABIES DURING A BITE-TO-HUMAN QUARANTINE**

## PET

### bitten by animal

What is the **biting** animal's species?

Wildlife

Domestic animal

Is pet vaccinated / up to date with RV?

NO

YES

**Vaccinate for Rabies ASAP (consider Texas Protocol – 0, 3, 8 weeks)**

**Booster Rabies Vx ASAP**

**No need to booster**

**Not reportable  
No quarantine**



# **Rabies Vaccination**

## **Is rabies vaccination mandatory in California?**

Yes. Rabies vaccination in dogs is mandatory. Some cities in LAC have enacted rabies vaccination requirements for cats. VPH recommends that all dogs and cats, indoor and outdoor, are vaccinated for rabies and kept up to date.

## **How do I know if a dog is exempt from a rabies vaccination?**

VPH is the department that handles rabies vaccination exemptions for dogs only. If a dog is exempt from getting a rabies vaccination, we will send approved paperwork to the dog's veterinarian that will be passed on to the dog owner. If the owner or veterinarian does not have the approved paperwork from us, the dog is not exempt from the vaccination and must comply with local licensing laws. Call VPH if you want to check on the status of an exemption.

## **Should I booster the rabies vaccine of all animals under rabies quarantine?**

Animals that bite humans should be minimally handled during quarantine and should only be vaccinated for rabies AFTER the quarantine has passed.

Animals that are bitten by wild mammals should be boosted as soon as possible after the incident, even if they were up to date with the rabies vaccine. Start the Texas protocol (0, 3, 8 week post-bite rabies boosters) for animals that have never had a rabies vaccine before that are bitten by wildlife.

## **If there hasn't been a local dog or cat with rabies in LA County since the 1960s, then why do we have to vaccinate dogs and cats for rabies?**

The risk of rabies in local dogs and cats is low in LA County, however there are several ways that rabies can still be transmitted to our pets. Foreign dogs/pets being imported from other countries can bring rabies into our communities and dogs and cats can interact with bats and wildlife that carry rabies. If we stop

vaccinating animals against rabies, we are not protecting them from it, and we are increasing their risk of becoming rabid and exposing us to the disease as well.

**My dog/cat does not go outside, he stays strictly indoors, why do I have to keep him up to date with the rabies vaccine?**

In California, rabies vaccination in dogs is mandatory. Also, even indoor dogs and cats can have exposure to bats. Rabid bats are consistently found inside houses and workplaces every year.

**What is the purpose of the rabies vaccine?**

Every time you give a rabies vaccine to a pet, you are strengthening their own immunity and defenses against contracting rabies from another animal. Rabies is common in other parts of the world because there is no animal control or mandatory rabies vaccination for pets. Unprotected pets in these areas are running stray, biting other animals and biting humans, passing on the disease.

**Can I accept foreign rabies vaccination certificates for licensing?**

Refer to the CDPH Compendium of U.S. Licensed Animal Rabies Vaccines in this manual to see a list of approved rabies vaccinations. Only rabies vaccines licensed by USDA and approved by the California Department of Public Health can be used in the California Rabies Control Program. If the rabies vaccine on the certificate is not approved, then the animal should be immediately re-vaccinated with a U.S. licensed rabies vaccine. If you are unsure, call VPH, or consider re-boosting the animal.

**What is the minimum age to vaccinate dogs and cats for rabies?**

The minimum age for rabies vaccination in dogs and cats changed from 4 months to 3 months in January 2014.

**Part III.**  
**California Department of Public Health**  
**Compendium of U. S. Licensed Animal Rabies Vaccines - 2012,**  
**and Their Application in Animals Under the California Rabies Control Program**  
– continued –

**A) MONOVALENT – INACTIVATED**

Product Name	Produced By	Marketed By	For Use In	Dosage/Route*	Minimum Age at Primary Vaccination	Booster Recommendation
DEFENSOR 1	Zoetis License No. 190	Zoetis	<b>Dogs</b> Cats	<b>NOT APPROVED</b> 1 ml SC	<b>FOR USE IN</b> 3 months	<b>CALIFORNIA</b> Annually
DEFENSOR 3 DEFENSOR 3 CA	Zoetis License No. 190	Zoetis	<b>Dogs</b> Cats Sheep Cattle	1 ml IM or SC 1 ml SC 2 ml IM 2 ml IM	3 months 3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually Annually
NOBIVAC 1	Merck Animal Health License No. 190	Intervet Inc.	<b>Dogs</b> Cats	<b>NOT APPROVED</b> 1 ml SC	<b>FOR USE IN</b> 3 months	<b>CALIFORNIA</b> Annually
NOBIVAC 3 NOBIVAC 3 CA	Merck Animal Health License No. 190	Intervet Inc.	<b>Dogs</b> Cats Sheep Cattle	1 ml IM or SC 1 ml SC 2 ml IM 2 ml IM	3 months 3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually Annually
EQUI-RAB	Merck Animal Health License No. 165A	Intervet Inc.	Horses	1 ml IM	4 months	Annually
RABVAC 1	Elanco License No. 196	Elanco	<b>Dogs</b> Cats	<b>NOT APPROVED</b> 1 ml IM or SC	<b>FOR USE IN</b> 3 months	<b>CALIFORNIA</b> Annually
RABVAC 3	Elanco License No. 196	Elanco	<b>Dogs</b> Cats Horses	1 ml IM or SC 1 ml IM or SC 2 ml IM	3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually
IMRAB 3	Merial, Incorporated License No. 298	Merial, Incorporated	<b>Dogs</b> Cats Sheep Cattle Horses Ferrets	1 ml IM or SC 1 ml IM or SC 2 ml IM or SC 2 ml IM or SC 2 ml IM or SC 1 ml SC	3 months 12 weeks 12 weeks 12 weeks 12 weeks 12 weeks	1 year later & triennially 1 year later & triennially 1 year later & triennially Annually Annually Annually
IMRAB 3 TF	Merial, Incorporated License No. 298	Merial, Incorporated	<b>Dogs</b> Cats Ferrets	1 ml IM or SC 1 ml IM or SC 1 ml SC	3 months 12 weeks 12 weeks	1 year later & triennially 1 year later & triennially Annually
IMRAB Large Animal	Merial, Incorporated License No. 298	Merial, Incorporated	Cattle Horses Sheep	2 ml IM or SC 2 ml IM or SC 2 ml IM or SC	3 months 3 months 3 months	Annually Annually 1 year later & triennially

**Part III.**  
**California Department of Public Health**  
**Compendium of U. S. Licensed Animal Rabies Vaccines - 2012,**  
**and Their Application in Animals Under the California Rabies Control Program**  
 – continued –

Product Name	Produced By	Marketed By	For Use In	Dosage/Route*	Minimum Age at Primary Vaccination	Booster Recommendation
IMRAB 1	Merial, Incorporated License No. 298	Merial, Incorporated	Dogs Cats	<b>NOT APPROVED</b> 1 ml SC	<b>FOR USE IN</b> 12 weeks	<b>CALIFORNIA</b> Annually
IMRAB 1 TF	Merial, Incorporated License No. 298	Merial, Incorporated	Dogs Cats	<b>NOT APPROVED</b> 1 ml SC	<b>FOR USE IN</b> 12 weeks	<b>CALIFORNIA</b> Annually

**B) MONOVALENT- RABIES GLYCOPROTEIN, LIVE CANARY POX VECTOR**

Product Name	Produced By	Marketed By	For Use In	Dosage/Route*	Minimum Age at Primary Vaccination	Booster Recommendation
PUREVAX Feline Rabies	Merial, Incorporated License No. 298	Merial, Incorporated	Cats	1 ml SC	8 weeks	Annually

**C) COMBINATION - INACTIVATED RABIES**

Product Name	Produced By	Marketed By	For Use In	Dosage/Route*	Minimum Age at Primary Vaccination	Booster Recommendation
EQUINE POTOMAVAC + IMRAB	Merial, Incorporated License No. 298	Merial, Incorporated	Horses	1 ml IM	3 months	Annually

**D) COMBINATION – RABIES GLYCOPROTEIN, LIVE CANARY POX VECTOR**

Product Name	Produced By	Marketed By	For Use In	Dosage/Route*	Minimum Age at Primary Vaccination	Booster Recommendation
PUREVAX FELINE 3/ RABIES	Merial, Incorporated License No. 298	Merial, Incorporated	Cats	1 ml SC	8 weeks	Annually
PUREVAX FELINE 4/ RABIES	Merial, Incorporated License No. 298	Merial, Incorporated	Cats	1 ml SC	8 weeks	Annually

**Part III.**  
**California Department of Public Health**  
**Compendium of U. S. Licensed Animal Rabies Vaccines - 2012,**  
**and Their Application in Animals Under the California Rabies Control Program**  
– continued –

ROUTES AND SITES OF INOCULATION IN DOGS: Approved canine vaccines must be administered to dogs according to the manufacturer's recommendations either intramuscularly (IM) or subcutaneously (SC). Administration via other sites or routes may reduce effectiveness or be unsafe. For species other than dogs, refer to the vaccine label.

Adapted from the Compendium of Animal Rabies Prevention and Control, 2011, National Association of State Public Health Veterinarians, Incorporated  
Rev. 10/15/13, 12/31/13, 4/25/17, 3/14/19

- \* Intramuscularly (IM)
- Subcutaneously (SC)



# CALIFORNIA COMPENDIUM OF RABIES CONTROL AND PREVENTION



California Department of Public Health  
Veterinary Public Health Section, 2012



**CALIFORNIA COMPENDIUM OF RABIES CONTROL AND PREVENTION  
2012**

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**(<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/VP>  
HS.aspx)**

## Introduction

This publication of the California Department of Public Health (CDPH) provides information on rabies to California's public health officials, medical professionals, practicing veterinarians, animal control officers, and other parties concerned with rabies control in the State. The recommendations contained herein are reviewed and updated on a periodic basis to reflect the current status of rabies and rabies prevention activities in California. Updates are based on current rabies research and scientific literature, rabies prevention guidelines published by the federal Advisory Committee on Immunization Practices (ACIP)<sup>1, 2</sup> and by the National Association of State Public Health Veterinarians<sup>3</sup>, California state statute and regulations, and established rabies control practices and procedures.

Recommendations by state and federal experts and existing standards of practice outlined in this document are intended to provide guidance to individuals and agencies involved with rabies prevention and control in California. Except for statutes and regulations specifically cited, the information contained in this document are recommendations provided for informational purposes only and are not intended to be regulatory in effect.

# Part I.

## Animal Rabies Control

### **A. Principles of rabies control**

#### **1. Human rabies prevention**

Human rabies can be prevented by a) eliminating exposure to rabies virus, b) providing appropriate rabies pre-exposure prophylaxis, and c) prompt local treatment of bite wounds combined with appropriate rabies post-exposure prophylaxis. Human rabies pre- and post-exposure prophylaxis are addressed in Part II of the Compendium.

#### **2. Domestic animal rabies control**

The California Health and Safety Code (HSC), §121690, mandates that the governing body of each city, city and county, or county maintain or provide a rabies control shelter system and a rabies control program. The primary components of a rabies control program for companion animals are: immunization and licensing; stray animal control; reporting, investigation, and isolation of animals involved in bite incidents; and public education.

#### **3. Wild animal rabies control**

Rabies virus is maintained in populations of wild animals and occasionally spills over into domestic animals and humans. In California, skunks and bats comprise over 90 percent of animal rabies cases reported each year. Prevention and control of rabies in bats and terrestrial mammals pose considerable challenges. It is generally not possible or desirable to control rabies by reducing the size of wild carnivore or bat populations. Selective population reduction may be attempted in terrestrial rabies outbreaks of limited geographic scope, but these efforts can be labor and resource intensive and provide effective control only until immigration or reintroduction of the incriminated species. Immunization of wildlife by widespread distribution of vaccine-impregnated oral baits has shown variable success toward arresting the propagation of rabies in raccoons and coyotes in other states. The effectiveness of oral rabies vaccination programs has not been demonstrated for skunks and such programs would be infeasible for bats. Principles of rabies prevention should focus on excluding wild animals from areas of human and domestic animal habitation and activity, and avoidance of contact with possibly rabid wild animals. Public education on the risks of rabies transmission from wild animals is paramount to effective disease prevention.

### **B. Rabies control methods for domestic and confined animals**

#### **1. Animal bite reporting (Title 17, California Code of Regulations [CCR], §2606)**

The local health officer or designee shall be immediately notified of any person or animal

bitten by or potentially exposed to a rabid or suspected rabid animal. In addition, the local health officer or designee shall be notified when any person is bitten by a mammal. Potential human rabies exposures are then evaluated and rabies post-exposure prophylaxis (PEP) recommendations made.

## **2. Isolation of biting animals (17 CCR §2606)**

### **(a) General considerations**

Dogs, cats, and ferrets that bite a human or another dog, cat, or ferret are subject to isolation and observation, or euthanasia and testing. If the bite is judged by the local health officer to be unusual or to represent an increased risk for rabies (e.g., unprovoked attacks, bites to the face, or considerable deep tissue damage), the animal should be euthanized and tested immediately. The National Association of State Public Health Veterinarians recommends that if an animal under isolation develops clinical signs suggestive of rabies, the animal should be humanely euthanized and the head submitted for rabies testing through the local public health laboratory.<sup>3</sup> Any unclaimed or stray animal that bites a human may be euthanized and the head promptly submitted to the local public health laboratory for rabies testing. Protocols for submitting samples for rabies testing are available from the local public health laboratory. Rabies or other immunizations should not be administered to a dog, cat, or ferret during isolation because adverse reactions may be misinterpreted as clinical signs of rabies.<sup>3</sup>

### **(b) Dogs and cats (17 CCR §2606(b)(2))**

Domestic dogs and cats that bite or otherwise expose humans must be isolated in strict confinement and in compliance with the local health officer's isolation order. The biting dog or cat must be either a) observed daily for signs of rabies for ten (10) days following the exposure date, regardless of the animal's vaccination status, or b) euthanized immediately and tested for rabies in a public health laboratory. If an isolated dog or cat is healthy at the end of the ten-day period, there is no risk of a rabies exposure from the original bite wound.

### **(c) Ferrets**

It is illegal in California to possess a ferret as a pet (California Fish and Game Code [FGC] §2118). Nevertheless, bites from these animals occur. If a ferret bites a human in California, it should be isolated in strict confinement and in compliance with the local health officer's isolation order. The biting ferret should be either a) observed daily for signs of rabies for ten (10) days following the exposure date, regardless of the animal's vaccination status, or b) euthanized immediately and tested for rabies in a public health laboratory. Biting ferrets should be confiscated by the animal control agency and isolations conducted under the direction of the local health officer in an animal control shelter or veterinary hospital. If an isolated ferret is healthy at the end of the ten-day period, there is no risk of a rabies exposure from the original bite wound. Because pet ferrets are illegal in California, any ferret isolated for a human bite should be reported to the California Department of Fish and Game for disposition following the isolation.

### **(d) Other domestic and nondomestic species**

The incubation period, clinical presentation, and pre-clinical period of rabies virus

shedding are well described only for dogs, cats, and ferrets. The period in which other domestic, non-domestic, and wild animals shed rabies virus prior to showing clinical signs of rabies is generally not known. Biting wild, nondomestic, or domestic animals other than dogs, cats, and ferrets should not be isolated for observation but should be euthanized and tested for rabies immediately.

While isolation of biting animals other than dogs, cats, and ferrets is not recommended for the reasons given above, local health officers have the prerogative to forego euthanasia and testing in rare special circumstances. If the biting animal has a comprehensive and reliable history that precludes opportunity for exposure to rabies virus, and the risk of rabies in the biting animal is judged by the health officer to be acceptably low, the health officer may institute a prolonged (30-day) isolation of the biting animal. Under the care of a physician, the bite victim could be started immediately on rabies PEP. This special allowance can be considered due to the low risk for exposure, the reliable efficacy of rabies PEP, and the low incidence of serious adverse reactions with that treatment.

### **3. Isolation of animals exposed to rabies (17 CCR §2606)**

Any animal bitten by, scratched by, or having direct contact with a wild mammal (especially bats and skunks) that is not available for rabies testing should be regarded as having been exposed to rabies.

#### **(a) Dogs, cats, and ferrets**

Dogs, cats, and ferrets that are currently vaccinated should be revaccinated immediately and placed in strict isolation for 30 days. While isolation provisions are at the discretion of the local health officer, "strict isolation" must preclude contact between the isolated animal and other animals and the public. Any other dogs, cats, or ferrets for which contact with the bitten animal cannot be absolutely prevented during the isolation period should be held to the same restrictions for the entire isolation period. Ferrets must be confiscated by the animal control agency and isolation conducted under the direction of the health officer in an animal control shelter or veterinary hospital. Because ferrets are illegal to possess as pets in California, any ferret must be reported to the California Department of Fish and Game for disposition following the isolation. Unvaccinated dogs, cats, and ferrets exposed to a rabid or suspect rabid animal should be euthanized immediately.<sup>3</sup> An alternative to euthanasia is immediate vaccination of the animal and placement in strict isolation for six months (180 days). Euthanasia is strongly recommended for unvaccinated juvenile animals due to their higher susceptibility to rabies infection. Protocols for the post-exposure vaccination of previously unvaccinated animals have not been validated, and there is evidence that the use of vaccine alone in a post-exposure setting may not prevent the disease.

#### **(b) Livestock**

All livestock species--horses, cattle, sheep, goats, llamas/alpacas, swine--are susceptible to rabies infection. Cattle and horses are the livestock species most frequently diagnosed with rabies. Unvaccinated livestock bitten by or exposed to a rabid or suspect rabid animal should be euthanized.<sup>3</sup> If the animal is slaughtered within seven days after being exposed, the tissues may be consumed without risk of

infection, provided liberal portions of the exposed area are discarded. However, the slaughtered animal cannot be sold commercially as a source of food; federal (United States Department of Agriculture [USDA]) meat inspectors are required to reject for slaughter any animal known to have been exposed to rabies within the past eight months.<sup>3</sup> Neither tissue nor milk from a rabid animal should be used for human or animal consumption.<sup>3</sup> However, because heat inactivates rabies virus, persons who inadvertently drink pasteurized milk or eat fully cooked meat from an animal subsequently identified as rabid are not considered to have been exposed to rabies.

An alternative to euthanizing exposed livestock is to vaccinate the animal immediately with an approved vaccine and to place it in strict isolation for six months during which time the animal may not be transported, sold, or slaughtered unless approved by the local health officer and the California Department of Food and Agriculture. Livestock that are currently vaccinated should receive a rabies booster immediately and be placed in strict isolation for 30 days.<sup>3</sup> In general, an isolation order for the entire herd is not indicated unless the animals have been held in close confinement that would allow for multiple animals exposed to the same rabies source (e.g., a wild animal). It is unusual to have more than one rabid animal in a herd. In such cases, it is more likely that multiple animals were exposed by a single rabid wild animal or dog than that rabies virus was transmitted from herbivore to herbivore. Animals in a herd where a rabies death has occurred should be examined immediately for evidence of bite exposures.

**(c) Wild, nondomestic, and other mammals**

Wild, nondomestic, and other mammals bitten by or exposed to a rabid or suspect rabid animal should be euthanized immediately.<sup>3</sup>

**4. Animal rabies vaccination**

**(a) Rabies vaccine administration (HSC §121690, §121700)**

Animal rabies vaccines are restricted for sale to licensed veterinarians, biological supply companies, and government agencies that conduct rabies control programs. All animal rabies vaccines are restricted to use by, or under the supervision of, a California-licensed veterinarian. The level of supervision shall be consistent with Title 16, CCR, §2034-2036.5 of the California Veterinary Medicine Practice Act. The veterinarian whose signature is on the rabies certificate retains legal responsibility that the person administering the vaccine is appropriately trained in vaccine storage, handling, administration, and management of adverse events.<sup>3</sup> Rabies vaccines should be administered in accordance with the specifications of the vaccine product label or package insert. Rabies vaccine should be administered in a new, sterile needle and syringe. The re-use of cleaned and sterilized needles and syringes is strongly discouraged. Single use of the needle and syringe is consistent with vaccine manufacturers' recommendations.

**(b) Accidental human exposure to rabies vaccine**

Accidental human inoculation may occur during administration of an animal rabies vaccine. Such exposure to inactivated rabies vaccine does not constitute a risk for

rabies infection.

**(c) Contraindications and adverse events**

There are no absolute contraindications to administration of rabies vaccine to appropriate species. Veterinarians should, if possible, postpone vaccinating animals that are ill or immunocompromised to ensure a robust immune response. There is no epidemiologic association between a particular licensed vaccine product and adverse events, including vaccine failure. Adverse reactions to vaccination should be reported to the [USDA, Center for Veterinary Biologics](http://www.aphis.usda.gov/animal_health/vet_biologics/vb_adverse_event.shtml) ([http://www.aphis.usda.gov/animal\\_health/vet\\_biologics/vb\\_adverse\\_event.shtml](http://www.aphis.usda.gov/animal_health/vet_biologics/vb_adverse_event.shtml), Tel: 800-752-6255, e-mail: [CVB@usda.gov](mailto:CVB@usda.gov)).

Beginning in the 1990s, an association between the administration of certain vaccines, including rabies, and the development of cancer (sarcoma) in some cats was identified. However, this risk appears to be extremely low (1-2 cases per 10,000 vaccinated cats). The public health implications of rabies in domestic cats outweigh the low risk of a sarcoma developing at a vaccination site. To facilitate management of vaccine-associated sarcomas, to avoid injection of multiple vaccines at a single site (a putative risk factor for sarcoma formation), and to aid in documenting vaccine placement, the American Association of Feline Practitioners recommends that rabies vaccine be administered subcutaneously on the right hind limb distal to the stifle joint.

**(d) Canine rabies vaccination (HSC §121690; 17 CCR §2606.4, §2606.6)**

The owner of every dog over the age of four months shall ensure that the dog is vaccinated for rabies by a licensed veterinarian and will secure a license for the pet as provided by local city or county ordinance. A current rabies vaccination certificate must accompany dogs over four months of age entering the state. Dogs less than four months of age must be confined at home or kept under close leash supervision by the owner when off property.

Twenty-eight days after primary vaccination peak rabies antibody level is reached and a dog is considered currently vaccinated for one year.<sup>3</sup>

Regardless of the age of the dog at primary vaccination, a booster vaccination should be given one year later. All vaccines approved for use in dogs in California follow a three-year booster schedule thereafter. There are no laboratory or epidemiologic data to support the annual or biennial administration of three-year vaccines following the initial immunization series. Because a rapid anamnestic response is expected, a dog is considered currently vaccinated immediately after receiving a booster vaccination. An animal that is overdue for a rabies booster should be vaccinated as soon as possible and the three-year booster schedule re-established.<sup>3</sup>

Only canine rabies vaccines licensed by USDA and approved by the California Department of Public Health (CDPH) can be used in the California Rabies Control Program (17 CCR §2651). The rabies vaccines currently approved for use in California are listed in Part III of the Compendium.

**(e) Feline rabies vaccination**

Vaccination of domestic cats for rabies is not mandated by California statute. However, because cats are the domestic species that is most frequently reported as rabid in the United States, feline rabies vaccination is required by some local ordinances and is strongly recommended for all cats. A USDA-licensed feline rabies vaccine should be administered according to the vaccine label instructions (see Part III of the Compendium). Cats are considered currently vaccinated from 28 days to one year following primary vaccination, and 1, 3, or 4 years following booster vaccinations, depending on the vaccine used.<sup>3</sup>

**(f) Ferret rabies vaccination**

It is illegal in California to possess a ferret as a pet (FGC §2118). Nevertheless, owners of illegally kept ferrets may occasionally seek veterinary care (California Business and Professional Code §4826.2). As a public health measure, veterinarians should vaccinate ferrets against rabies using a USDA-licensed rabies vaccine administered according to vaccine label instructions (see Part III of the Compendium). Ferrets are considered currently vaccinated from 28 days to one year following primary vaccination, and for one year following each booster.<sup>3</sup>

**(g) Livestock rabies vaccination**

Routine vaccination of all livestock against rabies is economically impractical. However, vaccination of horses and livestock with a USDA-licensed vaccine (see Part III of the Compendium) should be considered in areas where wildlife rabies is highly endemic, for valuable individual animals, for horses kept in boarding stables or racetracks or traveling interstate, and for animals having frequent contact with humans (e.g., petting zoos).<sup>3</sup>

**(h) Wildlife and non-domestic rabies vaccination**

No rabies vaccines are licensed for use in animal species other than dogs, cats, cattle, horses, sheep, and ferrets in the U.S. The effectiveness of rabies vaccination in other species is unknown. Because of their susceptibility to rabies, wild carnivores and bats should not be kept as pets.<sup>3</sup> Bats and certain species of carnivores may not enter California without an importation permit from CDPH (17 CCR §30070-86) and are subject to a 90-day rabies quarantine upon importation into California. Carnivores and bats must be housed in a manner that precludes direct contact with the public.<sup>3</sup> Due to the special rabies risk, the trapping, transport, sale, and exchange of skunks in California is prohibited (17 CCR §2606.8). Zoos and research institutions may establish vaccination programs intended to protect valuable animals, but these programs do not substitute for appropriate preventive measures to protect humans.

The effectiveness of rabies vaccination in the progeny of domestic dogs or cats bred to wild animals (e.g., wolf-dog hybrids, civet-cat hybrids) is unknown. Complete rabies vaccine challenge and viral shedding studies have not been conducted for these animals. There is no definitive evidence that the vaccine is protective in these animals. Vaccination may afford some rabies protection to the animal; however, there are no rabies vaccines currently licensed for use in wild animals or in domestic-wild animal hybrids. Vaccination of these animals is considered an extra-label use of a biologic.

State law does not prohibit the use of rabies vaccines in domestic-wild animal hybrids. However, it is illegal to license domestic-wild canine hybrids as “dogs” under the California Rabies Control Program because they are considered wild animals (14 CCR §671(c)(2)(K)). A rabies vaccine certificate issued for a vaccinated hybrid must identify the animal as a “domestic-wild animal hybrid.” Local jurisdictions may institute domestic dog-wolf hybrid permitting programs and issue such permits in order to identify these animals in the community (HSC §121695). Canine or feline hybrids previously vaccinated are nonetheless considered “unvaccinated” for purposes of isolation/ observation in the event of a bite incident or contact with a rabid or suspect rabid animal. All hybrids are considered “wild animals” under these circumstances and managed according to sections 2(d) and 3(c) in this Compendium.<sup>3</sup>

**(i) Canine licensing and vaccination procedure (17 CCR §2606.4)**

The vaccination of all dogs four months of age or older is required for licensure. Completion of the licensing procedure consists of issuing a license tag or vaccination tag bearing the license data only after presentation of a current valid official rabies vaccination certificate. Official rabies vaccination certificates must contain the following information:

- a) name, address, and telephone number of the dog's owner;
- b) description of the dog, including breed, color, age, and sex;
- c) date of immunization;
- d) type of rabies vaccine administered;
- e) name of the manufacturer, product, and lot number of the rabies vaccine used.

Each certificate must bear the signature of the veterinarian administering the vaccination or a signature authorized by him or her. The certificate must be stamped, printed, or typed with the vaccinating veterinarian's name, address, and telephone number.

**(j) Rabies immunization exemptions (HSC §121690)**

A veterinarian may request from the local health officer an exemption from rabies vaccination for a dog for which the veterinarian determines that vaccination would endanger the dog's life because of disease or other considerations. If approved by the local health officer, the exempted dog may be issued a license but is considered unvaccinated and confined to the premises of the owner. Licensure of an exempted dog may not extend beyond one year; at or before the end of the one-year license period, the dog must be vaccinated for rabies or a request for vaccination exemption must be resubmitted to and reapproved by the local health officer.

**(k) Rabies serologic testing**

Serologic evidence of rabies neutralizing antibodies in an animal is not a substitute for current rabies vaccination in managing rabies exposures or determining the need for booster vaccinations.<sup>3</sup> Serum antibody titer is a measure of the animal's response to vaccine or infection and not a reliable indicator of protection. Elevated serologic titers do not necessarily indicate protection from rabies, nor do low or undetectable serologic titers reflect absence of protection. An ability to measure and interpret all the

immunologic factors that play a role in protecting against rabies is not well developed.

**5. "Actual cost" rabies vaccination clinics (HSC §121690)**

Each city, city and county, or county shall provide or arrange for canine rabies vaccination clinics in the community. No charge in excess of the actual cost may be made for vaccination administration. The CDPH establishes the actual cost that vaccination clinics may charge. Fees in excess of the CDPH-established actual cost require cost documentation and prior approval by CDPH.

# Part II.

## Human Rabies Prevention

### A. Rabies post-exposure prevention

Prevention of rabies following a possible exposure to rabies virus consists of two fundamental components: immediate cleaning and medical attention of the site of virus deposition, and post-exposure prophylaxis (PEP)--administration of human rabies immune globulin (HRIG) and rabies vaccine. Persons who have transdermal or mucous membrane contact with saliva or nervous tissue from a confirmed rabid animal, whether by bite or other means, should begin rabies PEP immediately. Persons exposed to a suspected rabid animal should begin PEP if rabies testing of the animal is not immediately available. To appropriately manage potential human exposure to rabies, the risk of infection must be accurately assessed. It is important to remember that rabies PEP is a medical urgency, not a medical emergency. With the exception of direct inoculation of rabies virus into the central nervous system (e.g., severe bite to the head that penetrates the neurocranium), there is time for information to be assembled and the risk to be rationally assessed. Nevertheless, decisions regarding PEP should not be delayed.

Extensive field experience from many parts of the world indicates that prompt wound treatment, passive immunization, and vaccination are uniformly effective in preventing development of clinical rabies when administered appropriately. However, rabies has developed in humans when recommended preventive protocols were not performed completely or correctly. Rabies PEP can be effective when initiated any time prior to onset of clinical disease. There have been many instances in which rabies PEP was not initiated until months after exposure due to delays in recognition of the exposure. Although onset of clinical rabies typically occurs between 60 and 90 days following exposure, incubation periods of one year or more have been reported. PEP should not be denied solely because a prolonged period of time has elapsed since the exposure event.

#### 1. Rabies exposure

Rabies exposure is defined as transdermal or mucous membrane contact with saliva--or, rarely, nervous tissue--from a rabid animal. A break in the cutaneous barrier that permits virus access to subdermal tissue may be created concomitant with (e.g., classic animal bite) or prior to (e.g., open wounds, abrasions, or scratches) deposition of saliva or contact with nervous tissue. Contact with other tissues (e.g. skin, hair, blood), secretions (e.g., skunk spray), or excretions (e.g., urine, feces) of a rabid animal does not constitute an exposure. Rabies virus is inactivated by exposure to ultraviolet radiation and by

desiccation, though the exact time required to render the virus inactive varies according to environmental conditions. Dried saliva or neurologic tissue is generally considered noninfectious. Scenarios for secondary exposure or "contact-transfer" of rabies virus (e.g., dog bites a skunk and then licks a human) are hypothetical and very unlikely to transmit rabies.

## **2. Assessment of rabies exposure**

Anti-rabies biologics are generally safe and in ready supply. Nevertheless, PEP should be allocated judiciously and reserved for individuals for whom exposure to rabies virus is likely. Decisions on PEP are ultimately made by the exposed individual and his/her health care provider, following a thorough assessment of the exposure incident and consultation with public health officials. No single set of criteria can determine the appropriateness of PEP for all situations. PEP decisions should be based on as much information about the exposure incident as can be assembled in a timely fashion. Factors that should be considered in PEP decisions include: species of biting animal, the physical and mental health of the biting animal, whether the bite was provoked, the severity of the bite, whether immediate wound care was implemented, the availability of the biting animal for isolation/observation or euthanasia/testing, and the bite victim's personal anxiety about rabies. Concerns about the bite victim's pre-existing medical conditions or ability to pay should never preclude initiation of PEP for an exposure incident in which PEP would be otherwise indicated (See Sections D and E).

Bats represent an important reservoir for rabies that deserves special consideration. Epidemiologic data suggest that transmission of rabies virus from bats can occur from very minor or even unrecognized bites. The limited injury inflicted by a bat bite (in contrast to wounds caused by carnivores) and equivocal recall of recognized exposure can hinder a health-care provider's ability to assess the risk of rabies resulting from an encounter with a bat.

Between 2000 and 2009, 18 human cases of rabies were identified in the U.S. with natural exposure to a bat variant virus. For only seven of these patients was a definite bat bite known; eight had known bat contact but no apparent bite, and for three no known contact with a bat was identified during the case investigation.

In all instances where a human is possibly exposed to a bat, the bat in question should be safely collected, if possible, and tested for rabies. Rabies PEP is recommended for all persons who experience a bite, scratch, or mucous membrane contact with a bat, unless the bat is available for testing and is negative for evidence of rabies. Rabies PEP may be appropriate even when a bite, scratch, or mucous membrane contact is not apparent if there is reasonable probability that such exposure might have occurred.

Rabies PEP should be considered when direct contact between a bat and a human has occurred, unless the exposed person can be certain that a bite, scratch, or mucous membrane exposure did not occur. In instances in which an apparently healthy bat is found indoors and there is no history of bat-human contact, the likely effectiveness of rabies PEP must be balanced against the low risk that such exposures appear to present. In this setting, rabies PEP can be considered for persons who were in the same room as the bat and are uncertain whether a bite or direct contact occurred (e.g., a sleeping

person awakens to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person) and rabies cannot be ruled out by testing the bat. Rabies PEP would not be warranted for other household members.

### **3. Local treatment of wounds**

Immediate and thorough washing of any bite or scratch wound with soap and water is an indispensable measure in preventing rabies. Animal experiments have shown that simple local wound cleaning and irrigation can markedly reduce the likelihood of rabies. Victims of animal bites should consult with their health care provider; medical or surgical attention, a tetanus toxoid booster, and antibiotic prophylaxis may be indicated independent of the assessed risk of rabies transmission.

### **4. Passive immunization**

Human Rabies Immune Globulin (HRIG) is administered only once, at the beginning of rabies PEP, to previously unvaccinated persons to provide immediate antibodies until the patient responds to rabies vaccination by actively producing antibodies. If HRIG is not given with the first dose of vaccine, it can be given up to Day 7 of the vaccine series. After Day 7, HRIG should be avoided due to possible interference with the developing vaccine immune response. HRIG is administered at a dose of 20 IU/kg body weight for all age groups. No more than the recommended dose of HRIG should be used due its potential to partially suppress active immunization. As much as possible of the calculated dose of HRIG should be infiltrated into the subcutaneous tissue and/or muscle around the wound site(s). Any remaining amount of HRIG should be administered intramuscularly at an anatomic site distant from vaccine administration. HRIG should never be administered in the same syringe or at the same anatomical site as vaccine and should never be administered in the gluteal area unless that is the site of exposure. In the absence of a bite or other known site of virus introduction, the full dose of HRIG should be administered at a site distant from vaccine administration (e.g., contralateral deltoid). Regardless of the interval between exposure and initiation of PEP, both HRIG and vaccine should be administered for both bite and nonbite exposures in persons not previously rabies immunized.

### **5. Active immunization**

Human Diploid Cell Vaccine (HDCV) or Purified Chick Embryo Cell Vaccine (PCEC) is administered in conjunction with HRIG at the beginning of postexposure treatment. A regimen of four 1-ml doses of HDCV or PCEC is given intramuscularly. The first dose should be given as soon as possible following an exposure (Day 0), with subsequent doses given on Days 3, 7, and 14. Vaccine should always be administered intramuscularly in the deltoid (lateral aspect of the upper arm). For pediatric patients, vaccine may be administered intramuscularly in the anterolateral aspect of the thigh. Rabies vaccine should never be administered in the gluteal region, as this may result in lower, possibly inadequate neutralizing antibody levels.

Rabies PEP should always include both vaccine and HRIG except in persons who have previously received complete immunization regimens (pre- or post-exposure prophylaxis) with a cell culture vaccine, or persons previously vaccinated with another type of vaccine who have documentation of adequate rabies virus neutralization antibody titers. These persons should immediately receive two 1-ml booster doses of HDCV or PCEC vaccine

administered intramuscularly on Days 0 and 3.

Because antibody response has been universally satisfactory in persons receiving the currently recommended rabies PEP schedule, routine post-treatment serologic testing is not recommended. Verification of adequate neutralizing antibody levels by serologic testing may be indicated in unusual circumstances, such as when the patient is known to be immunosuppressed. Immunosuppressive agents should not be administered during rabies PEP unless they are essential for the treatment of other conditions.

## **B. Pre-exposure prophylaxis**

Persons at frequent risk of exposure to rabies virus should consider pre-exposure prophylaxis (PreEP). Occupations considered to be in the "frequent risk" category include veterinarians, animal handlers, animal control officers, laboratory workers potentially exposed to rabies virus, and others who have frequent contact with mammals likely to have rabies. PreEP might be considered for other persons who are likely to come into contact with potentially rabid animals, such as wild mammal rehabilitators and persons traveling to foreign countries where canine rabies is endemic.

### **1. Primary or pre-exposure vaccination**

Three 1.0 ml injections of HDCV or PCEC are administered intramuscularly in the deltoid (lateral aspect of the upper arm) on days 0, 7, and 21 or 28. Multiple studies have documented development of rabies antibodies that meet or exceed recommended neutralizing titers (>0.5 IU/ ml) in all persons vaccinated according to this regimen. Persons who are immunosuppressed due to medication or illness should postpone PreEP if possible. Immunosuppressed persons who are at risk of rabies exposure can be vaccinated and should have their antibody titers measured following completion of the regimen.

### **2. Booster vaccination**

Routine rabies booster vaccination is not indicated for any pre-immunized group. The need for booster vaccination should be individually assessed based on current rabies antibody levels and the person's risk of exposure to rabies virus. Persons classified as having "frequent risk" (see B above) should have a serum sample tested for rabies antibody every two years--or every six months for persons working with rabies virus in a laboratory setting--following PreEP. If the titer is less than complete neutralization at 1:5 by the Rapid Fluorescent Focus Inhibition Test (RFFIT), the person should receive a single booster dose of rabies vaccine.

Several laboratories offer RFFIT testing at a cost of approximately \$35-\$45 per sample. Instructions for submission of samples and pricing are available by calling the numbers below. (RFFIT testing may also be available through other laboratories.)

[The Rabies Laboratory](http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm)  
[Kansas State University](http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm)

Manhattan, KS 66502

(785) 532-4483 Phone

(785) 532-4474 Fax

<http://www.vet.ksu.edu/depts/dmp/service/rabies/index.htm>

[Maryland State Rabies Laboratory](#)

Maryland Department of Health  
201 W. Preston Street  
Baltimore, MD 21201  
(410) 767-6177 Phone  
<http://www.dhmh.state.md.us/labs>

[Atlanta Health Associates, Inc.](#)

309 Pirkle Ferry Road, Suite D300  
Cumming, GA 30040  
(770) 205-9091, (800) 717-5612 Phone  
(770) 205-9021 Fax  
<http://www.atlantahealth.net>

**C. Rabies immunizing products available in the United States**

1. Human rabies vaccine stimulates an active immune response including production of neutralizing antibodies. These antibodies develop in approximately 7-10 days and usually persist for at least 2 years. The two vaccines currently available in the U.S. are considered equally efficacious and safe when used as indicated. The 1.0 ml dose of either HDCV or PCEC can be used for PEP or PreEP.

**(a) Human Diploid Cell Vaccine (HDCV) - Imovax<sup>®</sup> Rabies**

HDCV is prepared from the Pitman-Moore rabies virus strain grown in MRC-5 human diploid cell culture. The vaccine is concentrated by ultrafiltration and inactivated with beta-propiolactone. A single-dose vial containing lyophilized vaccine is reconstituted with diluent to a volume of 1.0 ml just before administration.

Imovax<sup>®</sup> Rabies is manufactured and distributed by [Sanofi Pasteur, Inc.](#) (phone 800-VAC-CINE [800-822- 2463], <http://www.vaccineplace.com/products>).

**(b) Purified Chick Embryo Cell Culture (PCEC) - RabAvert<sup>®</sup>**

PCEC is prepared by growing the Flury LEP fixed-virus strain in primary culture of chicken embryonic fibroblasts. The virus is inactivated with beta-propiolactone, and further processed with zonal centrifugation in a sucrose density-gradient to separate the final product from media and cell culture antigens. The vaccine is then lyophilized after addition of a stabilizer solution. RabAvert<sup>®</sup> is manufactured and distributed by

[GlaxoSmithKline](#) (phone 866-475-8222, <https://www.gsksource.com/pharma/content/gsk/source/us/en/brands/rabavert.html>).

2. **Rabies Immune Globulin - Human (HRIG)** provides immediate passive immunity that endures for only a limited time (half-life of approximately 21 days).

**Imogam<sup>®</sup> Rabies-HT, HyperRAB<sup>®</sup>, KEDRAB<sup>®</sup>**

Human rabies immune globulin (HRIG) is an antirabies gamma globulin concentrated by cold ethanol fractionation from plasma of hyperimmunized human donors. Three preparations of HRIG are commercially available in the U.S.: Imogam<sup>®</sup> Rabies-HT ([Sanofi Pasteur, Inc.](#), phone 800-VAC-CINE [800-822-2463], <https://www.vaccineshoppe.com/>), [HyperRAB<sup>®</sup>](#) (Grifols Therapeutics, Inc., <https://www.hypermunes.com/en/hcp/hyperrab-rabies>), and [KEDRAB<sup>®</sup>](#) (Kedrion Biopharma, 1-855-353-7466, <https://kedrab.com/>). Rabies neutralizing

antibody content is 150 international units (IU) per ml for Imogam® Rabies-HT and KEDRAB®; both products are available in 2 ml and 10 ml vials for pediatric and adult use, respectively. HyperRAB® is super-concentrated to 300 IU/ml and available in 1 ml and 5 ml vials. All HRIG products are heat treated but contain no preservatives and should be kept refrigerated (2-8 °C) until use.

#### **D. Adverse reactions to rabies immunizing products**

##### **1. Vaccine**

Local reactions such as pain, erythema, and swelling or itching at the injection site were reported in approximately 30-75 percent of patients receiving HDCV or PCEC. Mild systemic reactions such as headache, malaise, dizziness, muscle aches, nausea, and abdominal pain have been reported in 5-50 percent of recipients. Anaphylactic, encephalitic, or neuroparalytic events have been rarely reported.

##### **2. HRIG**

Local pain and tenderness at the injection site commonly occur following receipt of HRIG. A majority of recipients also experience mild systemic symptoms such as low grade fever and headache. No serious adverse events such as hypersensitivity or immune complex disease have been associated with HRIG.

HyperRab® and Imogam® Rabies-HT undergo multiple viral clearance procedures during preparation. There is no evidence that hepatitis B virus, human immunodeficiency virus, or other bloodborne pathogens have ever been transmitted by commercially available HRIG in the U.S.

##### **3. Management of adverse reactions**

Once initiated, rabies PEP should not be interrupted or discontinued because of local or mild systemic adverse reactions to rabies vaccine. Usually such reactions can be successfully managed with non-steroidal anti-inflammatory and antipyretic agents (e.g., ibuprofen or acetaminophen). For more severe reactions, consideration should be given to switching to another product. When a person with a history of hypersensitivity must be given rabies vaccines, pre-medication with antihistamines may be considered; epinephrine should be readily available to counteract anaphylactic reactions, and the person should be carefully observed immediately after administration.

Systemic anaphylactic or neuroparalytic reactions occurring during the administration of rabies vaccines, though rare, pose a serious dilemma for the attending physician. A patient's risk of developing rabies must be carefully considered before deciding to discontinue vaccination. The use of corticosteroids in the treatment of life-threatening neuroparalytic reactions carries the risk of inhibiting the development of active immunity to rabies. It is especially important in these cases that the patient's serum be tested for rabies antibodies following vaccination.

All serious systemic, neuroparalytic, or anaphylactic reactions to a rabies vaccine should be reported to the Vaccine Adverse Event Reporting System (VAERS) via a 24-hour toll-free telephone number (800-822-7967).

#### **4. Precautions and contraindications**

##### **a. Immunosuppression**

Persons with compromised immune function—whether by pre-existing medical condition (e.g., neoplasia) or exogenous immunosuppressives (e.g., corticosteroids)—may fail to develop complete and protective immunity after vaccination. Patients who are immunosuppressed should postpone PreEP if possible and consider avoiding activities for which rabies PreEP is indicated.

Immunosuppressed persons for whom PreEP is critical should have their antibody titers checked following completion of the vaccine series. Failure to seroconvert after the third dose should be managed in consultation with appropriate public health officials. Immunosuppressive agents should not be administered during rabies PEP unless essential for the treatment of other conditions.

##### **b. Pregnancy**

Because of the potential consequences of inadequate treatment of a rabies exposure, pregnancy is not considered a contraindication to rabies PEP. No increased incidence of abortion, premature births, or fetal abnormalities has been associated with rabies vaccination. If the risk of exposure to rabies is substantial, PreEP might also be indicated during pregnancy. Rabies vaccine given to a nursing mother does not affect the safety of breastfeeding for either mother or infant, and breastfeeding is not a contraindication to rabies vaccine.

##### **c. Antimalarials**

Concurrent use of antimalarial drugs may interfere with the immune response to rabies vaccination. In one study of persons undergoing PreEP with an intradermal rabies vaccine, individuals who were concurrently taking chloroquine had a lower geometric mean titer of anti-rabies antibodies at all test points compared to persons who were not taking antimalarials.<sup>4</sup> Nevertheless, all study subjects had serum antibody titers that exceeded the threshold that is considered adequate for protection (complete neutralization at 1:5 on RFFIT). Data are not available as to whether this same immunosuppressive effect occurs with other antimalarial drugs or with rabies PreEP using an intramuscular vaccine.

##### **d. Allergies**

Persons who have a history of serious hypersensitivity to rabies vaccine should be revaccinated with caution.

#### **5. Cost**

Coverage for rabies immunization, for both PreEP and PEP, varies among health insurance plans. Options are available to persons in need of PEP who are uninsured or otherwise cannot afford treatment.

a. Rabies vaccine (CPT Codes 90675/90676, and 90460/90461 or 90471/90472) and HRIG (CPT Codes 90375/90376 and 96372) are covered for Medi-Cal eligible persons. Eligibility may need to be determined by emergency certification request at the county welfare office.

b. For individuals who are ineligible for Medi-Cal, have annual income at or below 200 percent of the federal poverty level, and reside in participating counties, the cost of

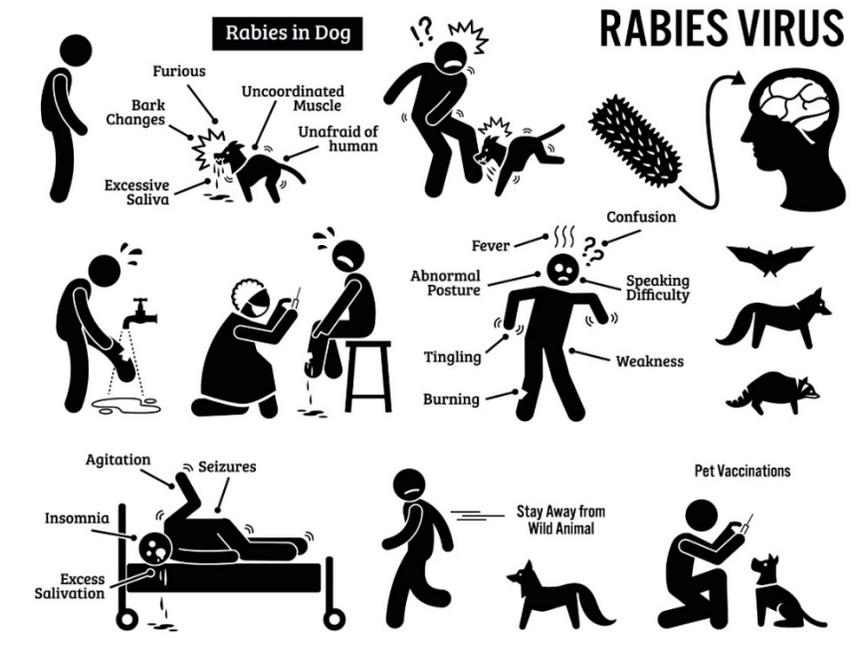
rabies PEP may be covered through the California County Medical Services Program.

- c. Both rabies vaccine manufacturers have patient assistant programs that provide medications to uninsured or underinsured patients. To be eligible, patients must be indigent, uninsured, ineligible for Medicare or Medi-Cal, have household income below federal poverty level, and the attending physician must waive all fees associated with treatment. Eligibility requirements differ between companies and they should be contacted directly to discuss whether a patient is eligible for their program. Sanofi Pasteur's Indigent Patient Program (providing Imogam<sup>®</sup> Rabies-HT and Imovax<sup>®</sup> Rabies) is administered through the National Organization for Rare Disorders. Information is available by telephone (877-798-8716) or e-mail (nnadiq@rarediseases.org). [Information on Novartis Pharmaceuticals' Patient Assistance Program for RabAvert<sup>®</sup>](#) is available at 800-277-2254 or <http://www.patientassistancenow.com/info/programstoaccessmedicines/patientassistanceinformation.jsp>.

## References

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<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5703a1.htm>
- 2 [Use of a Reduced \(4-Dose\) Vaccine Schedule for Postexposure Prophylaxis to Prevent Human Rabies Recommendations of the Advisory Committee on Immunization Practices.](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5902a1.htm) MMWR 2010; 59(RR-2):1-9. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5902a1.htm>
- 3 [Compendium of Animal Rabies Prevention and Control, 2011, National Association of State Public Health Veterinarians.](http://www.nasphv.org/documents/Compendia.html) <http://www.nasphv.org/documents/Compendia.html>
- 4 Pappaioanou M, Fishbein DB, Dreesen DW, et al. Antibody response to pre-exposure human diploid cell rabies vaccine given concurrently with chloroquine. N Engl J Med 1986; 314:280–4.

# Want to learn more about RABIES in Los Angeles County?



Take the online training available here:

[http://publichealth.lacounty.gov/vet/Shelter\\_rabies\\_training.htm](http://publichealth.lacounty.gov/vet/Shelter_rabies_training.htm)

Take the VPH quiz afterwards and encourage your coworkers to do the same. Go to:

[surveymonkey.com/r/VPHrabiesquiz](https://surveymonkey.com/r/VPHrabiesquiz)

Certificates of completion can be printed out afterwards to verify that you passed!