a. Human Pre-Exposure Immunization

Rabies pre-exposure vaccinations are administered to individuals such as veterinarians and their staff, wildlife biologists, rehabilitators, and animal control officers who routinely have contact with stray domestic, exotic, and/or wild animals. Pre-exposure immunization consists of three cell culture rabies vaccinations given on days 0, 7, and 21-28.

Pre-exposure immunization produces an immune response that is measurable by serum neutralizing antibody titers. Pre-exposure immunization may not provide optimal protection in the face of a rabies exposure. In the event of an exposure to a rabid or suspect rabid animal, vaccinated individuals should always receive 2 post-exposure vaccine doses on days 0 and 3. Immunoglobulin should not be administered.

For those working in an occupation which places them with a “frequent exposure” category, such as rabies diagnostic laboratory workers; veterinarians and staff, animal control officers, wildlife workers, and cavers where areas where rabies is enzootic; and anyone who frequently handle bats: two years after a person receives the initial series of pre-exposure rabies vaccinations, a serum sample should be drawn to measure serum-neutralizing antibodies. If the titer is below a 1:5 serum dilution, and the person has continuing potential rabies exposures, a single dose of rabies vaccination should be administered. Neutralizing antibody titers should be checked every 2 years. For humans, the rapid fluorescent focus inhibition test (RFFIT) is recommended by the Advisory Committee on Immunization Practices (ACIP). Serology via enzyme linked immunosorbent assay (ELISA) is not recommended. The RFFIT is the only valid method at this time to verify rabies virus neutralizing antibodies. A list of laboratories that perform RFFIT can be obtained from CDPHE.

Travelers to foreign countries that have endemic dog rabies:
Rabies pre-exposure vaccination is recommended for certain travelers to dog rabies enzootic areas.

Travelers should consult with a travel medical clinic at least one month prior to leaving. If a traveler is bitten or exposed to a mammal in a rabies endemic area, they should wash the wound with soap and water and seek immediate medical attention. Post exposure rabies prophylaxis should be started immediately after an exposure in a high-risk area, and can be discontinued if the quarantine period (10 days for dogs and cats) is completed and the animal remains healthy, or if testing of the animal concludes that it was not infected with rabies. If the animal is not available for quarantine or testing, post-exposure rabies prophylaxis should be considered.