

## IMMUNOBIOLOGICS

IMMUNOBIOLOGIC	PRIMARY IMMUNIZATION SCHEDULE	BOOSTER SCHEDULE	COMMENTS AND CONTRAINDICATIONS
<p>Rabies Vaccine</p> <p>Human diploid cell vaccine (HDCV) Imovax® Rabies Sanofi Pasteur</p> <p>Purified chick embryo cell vaccine (PCECV) RabAvert® Novartis Vaccines</p>	<p><b>Post-exposure vaccination:</b></p> <p><u>Persons not previously immunized</u><sup>1, 2, 3</sup></p> <p>First: 1.0 mL IM on day 0 Second: 1.0 mL IM on day 3 Third: 1.0 mL IM on day 7 Fourth<sup>3</sup>: 1.0 mL IM on day 14</p> <p><sup>1</sup> Immediately provide through cleansing of all wounds: See Rabies Prevention section. <sup>2</sup> Persons <u>not</u> previously immunized should receive rabies immune globulin ((RIG): See Rabies Prevention section. <sup>3</sup> For persons with immunosuppression, a fifth dose of HDCV or PCECV (1.0 mL IM) should be administered on day 28. A fifth dose is not necessary for immunocompetent persons.</p> <p><u>Persons previously immunized</u><sup>1, 2, 3</sup></p> <p>First: 1.0 mL IM on day 0 Second: 1.0 mL IM on day 3</p> <p><sup>1</sup> Immediately provide through cleansing of all wounds: See Rabies Prevention section. <sup>2</sup> Persons previously immunized should not be administered rabies immune globulin (RIG). <sup>3</sup> See Rabies Prevention section for definition of persons previously immunized.</p> <p><b>Pre-exposure vaccination<sup>1</sup>:</b></p> <p>First: 1.0 mL IM on day 0 Second: 1.0 mL IM on day 7 Third: 1.0 mL IM on day 21 or 28</p> <p><sup>1</sup> See Comments and Contraindications column for information on persons who should be offered pre-exposure vaccination.</p> <p>NOTE: Do not inject vaccine into the gluteal area as this may result in diminished immunologic response.</p>	<p><b>Pre-exposure revaccination</b></p> <p>Dose: 1.0 mL IM</p> <p><b>Continuous risk<sup>1</sup>:</b> Check serologic titers to rabies every 6 months and give booster when antibody titer drops below 1:5 titer on the rapid fluorescent focus inhibition test (RFFIT).</p> <p><b>Frequent risk<sup>1</sup>:</b> Perform serologic testing every 2 years; give booster vaccination if antibody titer is below 1:5 titer on RFFIT.</p> <p><b>Infrequent risk<sup>1</sup></b> None</p> <p><sup>1</sup> See Comment and Contraindication column for definition of risk groups.</p>	<p><b>Post-exposure vaccination of persons not previously immunized:</b> In March 2010, the ACIP recommended reducing the number of vaccine doses needed from 5 to 4, except for immunosuppressed persons who should continue to receive 5 doses. [<a href="#">MMWR 2010:59( No. RR-#2):1-12</a>]</p> <p><b>Pre-exposure vaccination</b> does not eliminate the need for additional therapy after a rabies exposure but simplifies post-exposure treatment by eliminating the need for rabies immune globulin and decreasing the number of doses of vaccine required.</p> <p><b>Pre-exposure vaccination</b> should be offered to persons in high-risk groups, such as veterinarians and their staff, animal handlers, rabies researchers, and certain laboratory workers.</p> <p><b>Pre-exposure vaccination</b> also should be considered for persons whose activities bring them into frequent contact with rabies virus or potentially rabid bats, raccoons, skunks, cats, dogs, or other species at risk for having rabies. In addition, some international travelers might be candidates for pre-exposure vaccination if they are likely to come in contact with animals in areas where dog or other animal rabies is enzootic and immediate access to appropriate medical care, including rabies vaccine and immune globulin, might be limited.</p> <p><b>Definitions of risk groups for pre-exposure revaccination:</b></p> <ul style="list-style-type: none"> <li>• <b>Continuous risk:</b> Persons who work with live rabies virus in research laboratories or vaccine production facilities.</li> <li>• <b>Frequent risk:</b> Rabies diagnostic laboratory workers, cavers, veterinarians and staff, and animal-control and wildlife workers in areas where rabies is enzootic. All persons who frequently handle bats.</li> <li>• <b>Infrequent risk</b> (greater than the population at large): Veterinarians and animal-control staff working with terrestrial animals in areas where rabies is uncommon to rare. Veterinary students. Travelers visiting areas where rabies is enzootic and immediate access to appropriate medical care including biologics is limited.</li> <li>• <b>Rare:</b> U.S. population at large, including areas where rabies is epizootic. No vaccination necessary.</li> </ul> <p><b>Adverse Reactions:</b> Local reactions such as pain, erythema, swelling or itching at the injection site. Systemic reactions include malaise, headache, nausea, abdominal pain, muscle aches and dizziness. Approximately 6% of persons receiving booster doses have a delayed hypersensitivity reactions.</p> <p><b>Contraindications:</b> For post-exposure prophylaxis, there are no contraindications. For pre-exposure vaccination, anaphylactic reaction to any of the vaccine components (see package insert for individual vaccine), or after a prior dose. Usually, the other rabies vaccine can be used to complete the series.</p> <p>Patients who are immunosuppressed by disease or medication should postpone pre-exposure vaccination and consider avoiding activities for which pre-exposure vaccination is indicated. If this is not possible, immunosuppressed persons who are at risk for rabies should be vaccinated and their antibody titers checked.</p>