

## Anthrax Vaccine

<p><b>Vaccine Description</b></p>	<ul style="list-style-type: none"> <li>• <b>Brand: Biothrax® (Pre-exposure prophylaxis (PrEP) &amp; Post-exposure prophylaxis (PEP))</b></li> <li>• Inactivated vaccine</li> <li>• Adjuvant: Aluminum hydroxide</li> <li>• Vial stopper may contain dry natural latex rubber</li> <li>• See package insert</li> <li>• <b>Brand: Cyfendus (PIP)</b></li> <li>• Inactivated vaccine</li> <li>• Adjuvant: Aluminum Hydroxide, preservative: formaldehyde</li> <li>• No latex in Cyfendus</li> <li>• See package insert</li> </ul>
<p><b>Dose &amp; Route</b></p>	<ul style="list-style-type: none"> <li>• <b>Biothrax®:</b> Dose: 0.5 mL</li> <li>• Route: IM into the DELTOID muscle (Precaution: hemophilia, thrombocytopenia, and anticoagulation therapy); NOTE: SC route is required for post-exposure prophylaxis and approved for individuals at risk for hematoma formation: thrombocytopenia, hemophilia, and anticoagulation therapy.</li> <li>• (NOTE: dose and route differences for pre- and post-exposure administration).</li> <li>• <b>Cyfendus:</b> Dose: 0.5mL</li> <li>• Route: intramuscular (IM) in Deltoid</li> <li>• Gently swirl or roll vial, solution is milky-white suspension, AVOID foaming-DO NOT SHAKE</li> <li>• See package inserts</li> </ul>
<p><b>Indications</b></p>	<ul style="list-style-type: none"> <li>• Age 18-65 years according to current military guidelines</li> <li>• People with occupational risk</li> <li>• As adjunct treatment post exposure to anthrax bacillus (inhalation) (Biothrax or Cyfendus)</li> <li>• See Special Considerations</li> </ul>
<p><b>Administration Schedule</b></p> <p><b>Note:</b> Delays do NOT interfere with vaccine response.</p>	<ul style="list-style-type: none"> <li>• <b>Biothrax® Pre-Exposure:</b> Given in a series of 5 doses at 0, 1 month, 6 months, 12 months, and 18 months with an annual booster to sustain immunity [if needed based on deployment requirements].</li> <li>• <b>Biothrax® Post-Exposure:</b> 3 doses Subcutaneously at 0, 2, 4 weeks combined with antibiotic therapy for 60 days. (IE: Doxycycline 100mg every 12 hours or Ciprofloxacin 500mg every 12 hours in adults)</li> <li>• See CDC website - antibiotic use is weight based in children             <ul style="list-style-type: none"> <li>◦ <a href="#">Doxycycline for Post-Exposure Prophylaxis of Anthrax</a></li> <li>◦ <a href="#">Ciprofloxacin for Post-Exposure Prophylaxis of Anthrax</a></li> <li>◦ <a href="#">Anthrax Vaccination Recommendations</a></li> </ul> </li> <li>• <b>Cyfendus Post-Exposure:</b> 2 dose series administered at 0 and 2 weeks post exposure to anthrax bacillus.</li> </ul>

## Anthrax Vaccine (Continued)

<b>Administration Schedule</b>  <i>(continued)</i>	<b>Dose</b>	<b>Dose Recommended Interval</b>
	#1	0 (initial dose)
	#2	1 month after dose #1
	#3	5 months after dose #2
	#4	6 months after dose #3
	#5	6 months after dose #4
<b>Booster</b>	Annually (every 12 months) if required by duty status	
<b>Contraindications</b>	<ul style="list-style-type: none"> <li>• Serious allergic reaction to prior dose or vaccine component</li> <li>• Prior serious adverse event (e.g., new onset disabling muscle and/or joint pains, headache, fatigue), particularly if reproducible and/or worsening with more than one dose of vaccine</li> <li>• Breastfeeding is not a contraindication</li> <li>• Pregnant women should not be routinely vaccinated pre-exposure</li> <li>• Cyfendus: do not give with history severe allergic reaction-anaphylaxis following a previous dose Cyfendus, Biothrax or vaccine ingredient.</li> <li>• Refer to DHA-IHD for recommendations related to medical exemptions</li> </ul>	
<b>Precautions</b>	<ul style="list-style-type: none"> <li>• Prior adverse events or non-allergic hypersensitivity reactions</li> <li>• Pregnant women are not routinely be vaccinated pre-exposure unless the potential benefits of vaccination clearly outweigh the potential risks to the fetus</li> <li>• Prior anthrax disease may increase the potential for severe local adverse reactions</li> <li>• Vaccination during chemotherapy, high-dose corticosteroid therapy of greater than 2-week duration, or radiation therapy may result in a suboptimal response. Deferral of vaccination for 3 months after completion of such therapy may be considered</li> <li>• Concurrent moderate or severe illness with or without fever - postpone until recovery</li> <li>• Cyfendus: may have diminished immune response if receiving immunosuppressive therapy; <b>DO NOT GIVE</b> in pregnancy-can cause fetal harm (see package insert for details &amp; Biothrax pregnancy studies)</li> </ul>	

## Anthrax Vaccine (Continued)

<b>Special Considerations</b>	<ul style="list-style-type: none"><li>• <b>Do not restart the primary series for any reason.</b> Resume the primary series with administration of the next dose in the series. Administer subsequent doses of vaccine at intervals based on the date the last dose was given, not when it was originally scheduled.</li><li>• If an annual booster has not been administered on time, administer the booster dose at the earliest possible date, adjusting the subsequent booster schedule accordingly. Once the primary series is complete, it is never repeated.</li><li>• Side effects: site reaction, itch, swelling, muscle aches, fatigue, headache</li><li>• For severe large local reactions (greater than 10 cm or extending below a joint), contact DHA-IHD for consultation regarding optimum treatment and medical exemption</li><li>• Once the stopper of the multi-dose vial has been pierced, the vial must be discarded within 28 days.</li><li>• See Storage and Handling Section</li></ul>
<p>VIS: <a href="http://www.cdc.gov/vaccines/hcp/vis/vis-statements/anthrax.html">http://www.cdc.gov/vaccines/hcp/vis/vis-statements/anthrax.html</a> Standing Orders: <a href="http://www.health.mil/standingorders">www.health.mil/standingorders</a> Bioterrorism: <a href="https://www.cdc.gov/anthrax/">https://www.cdc.gov/anthrax/</a> DHA-IHD: <a href="http://www.health.mil/anthrax">www.health.mil/anthrax</a> Anthrax Vaccine Pregnancy Registry (619) 553-9255, DSN 553-9255, email: <a href="mailto:nhcr-vaccineregistry@mail.mil">nhcr-vaccineregistry@mail.mil</a>. Also notify DHA-IHD</p>	

**FACTOID:** Anthrax infection can occur in four forms: cutaneous (skin), inhalation, gastrointestinal, and injection.

**Source:**

<http://www.cdc.gov/anthrax/types/index.html>