

Centers for Disease Control and Prevention Recommendations for the Prophylactic Use of Antibiotics for Anthrax

Three antibiotic agents are approved by the Food and Drug Administration (FDA) for treatment: penicillin, doxycycline, and ciprofloxacin.

Currently, ciprofloxacin is the only antibiotic approved by the FDA for use in reducing the incidence or progression of disease after exposure to aerosolized *B. anthracis* (i.e., inhalational anthrax).

Facts about ciprofloxacin (cipro):

- A broad-spectrum, synthetic antimicrobial agent active against several microorganisms.
- Prevents the development or progression of inhalational anthrax.
- Adverse health effects include: vomiting, diarrhea, headaches, dizziness and rashes.
- Hypertension, blurred vision and other central nervous system effects occur in less than 1% of patients.

The use of ciprofloxacin is warranted only under the strict supervision of a physician.

- Indiscriminate use of ciprofloxacin and other antibiotics can contribute to antimicrobial resistance and lessen the effects of these agents against many infections.
- Inappropriate accumulation of stocks of ciprofloxacin may threaten the supply of this antibiotic in imminent circumstances.

Recommendations for use of ciprofloxacin and doxycycline for post-exposure prophylaxis following exposure to *B. anthracis*:

	Initial therapy	Duration
Adults (including pregnant woman ^{1,2} and immunocompromised)	Ciprofloxacin 500 mg po BID Or Doxycycline 100 mg po BID	60 days
Children ^{1,3}	Ciprofloxacin 15-20 mg/kg po Q12 hrs ⁴ Or Doxycycline ⁵ : >8 yrs and >45 kg: 100 mg po BID >8 yrs and ≤45 kg: 2.2 mg/kg po BID ≤8 yrs: same as >8 yrs and ≤45 kg	60 days

Footnotes:

1. If susceptibility testing allows, therapy should be changed to oral amoxicillin for post-exposure prophylaxis to continue therapy out to 60 days.
2. Although tetracyclines are not recommended during pregnancy, their use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6th month of gestation. Please consult physician after the 6th month of gestation for recommendations.
3. Use of tetracyclines and fluoroquinolones in children has adverse effects. These risks must be weighed carefully against the risk for developing life-threatening disease. If a release of *B. anthracis* is confirmed, children should be treated initially with ciprofloxacin or doxycycline as prophylaxis but therapy should be changed to oral amoxicillin 40 mg/kg of body mass per day divided every 8 hours (not to exceed 500 mg three times daily) as soon as penicillin susceptibility of the organism has been confirmed.
4. Ciprofloxacin dose should not exceed 1 gram/day in children.
5. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing and low incidence of gastrointestinal side effects.