

## Appropriate Dose of Epinephrine (1:1000) According to Age (when body weight not known)

| Age                          | Dosage    | Administration Route |
|------------------------------|-----------|----------------------|
| <b>2-6 months*</b>           | 0.07 mL   | IM or SC             |
| <b>12 months</b>             | 0.10 mL   | IM or SC             |
| <b>18 months to 4 years*</b> | 0.15 mL   | IM or SC             |
| <b>5 years</b>               | 0.20 mL   | IM or SC             |
| <b>6-9 years</b>             | 0.30 mL   | IM or SC             |
| <b>10-13 years</b>           | 0.40 mL + | IM or SC             |
| <b>≥ 14 years</b>            | 0.50 mL + | IM or SC             |

\* Dose for children between the ages shown should be approximated, the volume being intermediate between the values shown or increased to the next larger dose, depending on practicability.

Calculations based on body weight are preferred when weight is known.

+ For a mild reaction, a dose of 0.3 mL of aqueous epinephrine 1:1000 can be considered.

## Appropriate Dose of Diphenhydramine Hydrochloride (Benadryl®)

| Age                 | Dosage Injected 50 mg/mL | Dosage Oral or injected |
|---------------------|--------------------------|-------------------------|
| <b>&lt; 2 years</b> | 0.25 mL                  | 12.5 mg                 |
| <b>2-4 years</b>    | 0.50 mL                  | 25.0 mg                 |
| <b>5-11 years</b>   | 0.50 – 1.00 mL           | 25 – 50 mg              |
| <b>≥ 12 years</b>   | 1.00 mL                  | 50 mg                   |

Reference: Canadian Immunization Guide Seventh Edition - 2006. Public Health Agency of Canada



Health Canada  
Santé Canada

First Nations and Inuit  
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## TREATMENT PROTOCOL for Anaphylactic Reactions

### EMERGENCY MEASURES

1. Promptly administer **0.01 mL/kg** (maximum 0.5 mL) of aqueous epinephrine 1:1000 by intramuscular (IM) or subcutaneous (SC) injection in the opposite limb to that in which the vaccination was given. See approximate doses in table below.

**Failure to use epinephrine promptly is more dangerous than using it improperly**

2. Call for help, lay person down and elevate feet, establish oral airway if necessary, monitor vital signs and prepare for patient transfer to emergency department.
3. Epinephrine dosing can be repeated twice at 5 minute intervals if necessary (maximum 3 doses), again, avoiding the limb in which the vaccination was given. A different limb is preferred for each dose to maximize drug absorption.
4. Provide oxygen if patient has cyanosis, dyspnea or any other severe reaction.
5. If vaccine was injected subcutaneously, an additional dose of 0.005 mL/kg (maximum 0.3 mL) of aqueous epinephrine 1:1000 can be injected into the vaccination site to slow absorption. This is generally not repeated.

**Local injection of epinephrine into an intramuscular site is contraindicated because it dilates vessels and speeds absorption of the vaccine.**

6. As an adjunct to epinephrine, a dose of diphenhydramine hydrochloride (Benadryl®) can be given. Oral dose: 1-2 mg/kg to maximum single dose of 50 mg. Oral dose is preferred for conscious patients who are not seriously ill. See approximate doses in table below.
7. If bronchospasm resistant to an adequate dose of epinephrine, IF AVAILABLE, consider inhaled B-agonist (e.g. nebulized salbutamol 2.5 – 5.0 mg in 3 mL of saline or 1 puff / 3 kg to a maximum of 10 puffs by metered dose inhalers).