

Massachusetts Department of Public Health Standing Order 2025-04

Standing Order for Local Board of Health Administration of Medication for Managing Anaphylaxis in Children and Adolescents to Support Administration of Vaccines: 2025-2026

This standing order authorizes qualified local board of health personnel otherwise legally authorized to administer epinephrine or diphenhydramine as described below **to persons age 18 years or younger**. This standing order may only be used in the event of anaphylactic reaction to vaccination administered by qualified local board of health personnel in accordance with a standing order issued by me.

Qualified local board of health personnel means: an individual who is affiliated with a local board of health by reason of employment, or contract, or other relationship such as a volunteer subject to the control of the applicable local board of health for purposes of administering COVID-19 vaccinations.

Local board of health means: the appropriate and legally designated health authority of the city, town, or other legally constituted governmental unit within the Commonwealth having the usual powers and duties of the board of health or health department of a city or town.

Administering any medicine, including vaccines, can cause an adverse reaction.

When adverse reactions do occur, they can range from minor (e.g., soreness, itching) to serious (e.g., anaphylaxis). Vaccinators using this order must:

- Know how to recognize allergic reactions, including anaphylaxis.
- Be familiar with how to administer epinephrine.

This standing order defines the procedure for managing anaphylaxis.

Procedure for managing anaphylaxis in persons age 18 years or younger

- 1) If itching and swelling are limited to the injection site, observe patient closely for the development of generalized symptoms of anaphylaxis.
- 2) If symptoms of anaphylaxis develop, alert the lead clinical healthcare professional on-site and call 911. Qualified local board of health personnel should assess the airway, breathing, circulation, and level of consciousness of the patient. Monitor vital signs at 5-minute intervals.
- 3) Administer epinephrine.
 - Epinephrine is first line therapy for anaphylaxis. The most important medication in anaphylaxis is epinephrine. There are no absolute contraindications to epinephrine in the setting of anaphylaxis.

For intramuscular (IM) administration:

- Epinephrine Injection, USP, Autoinjector
Directions for use:
 - Administer a single dose of either 0.1 mg, 0.15 mg, or 0.3 mg IM (as appropriate for the patient's weight) into the anterolateral thigh. See dosing chart below to determine the correct dose based on the child's weight.
 - If EMS has not arrived and there is no improvement, or if symptoms persist or worsen, Epinephrine dose may be repeated 2 additional times at 5–15-minute intervals.
- Epinephrine Injection, USP
Directions for use:

- Administer epinephrine in a 1 mg/mL aqueous solution (1:1000 concentration). The recommended dose is 0.01 mg/kg per dose, up to a maximum single dose of 0.5 mg. Administer IM, preferably in the anterolateral thigh.
- If EMS has not arrived and there is no improvement, or if symptoms persist or worsen, Epinephrine dose may be repeated 2 additional times at 5–15-minute intervals.

For nasal administration:

- Epinephrine Intranasal, USP 1 mg/0.1 mL (15-30 kg) or 2 mg/0.1 mL (30 kg or heavier)
Directions for use:
 - Administer single dose nasal spray into one nostril.
- a. If EMS has not arrived and there is no improvement, or if symptoms persist or worsen, epinephrine dose may be repeated 1 additional time in the same nostril.

4) Optional Treatment: Administer antihistamine

- Antihistamines may be administered for relief of itching and urticaria (hives). These medications do not relieve upper or lower airway obstruction, hypotension, or shock. Never administer antihistamine as initial therapy for anaphylaxis instead of epinephrine, and consider antihistamines optional or adjunctive therapy.

For oral administration

- Diphenhydramine 25 mg capsules or tablets
Directions for use: Administer 1-2 mg/kg every 4 hours by mouth. See dosing chart below to determine the correct dose based on the child's weight.

OR

- Diphenhydramine 50mg capsules or tablets
Directions for use: Administer 1-2 mg/kg every 4 hours by mouth. See dosing chart below to determine the correct dose based on the child's weight.

OR

- Diphenhydramine 12.5mg/5mL liquid
Directions for use: Administer 1-2 mg/kg every 4 hours by mouth. See dosing chart below to determine the correct dose based on the child's weight.

- 5) Monitor blood pressure and pulse every 5 minutes. Perform cardiopulmonary resuscitation (CPR), if necessary, and maintain airway. Keep patient in recumbent position (flat on back) unless they are having breathing difficulty. If breathing is difficult, patient's head may be elevated, provided blood pressure is adequate to prevent loss of consciousness. If blood pressure is low, elevate legs.
- 6) Record the patient's reaction (e.g. hives, anaphylaxis) to the vaccine, all vital signs, and medications administered to the patient, including the time, dose given, patient response, the name of the medical personnel who administered the vaccine, and other relevant clinical information.
- 7) Notify the patient's primary care provider, if able.
- 8) Report the incident to the Vaccine Adverse Event Reporting System (VAERS).

For your convenience, approximate dosages based on weight and age are provided in the following charts. Please confirm that you are administering the correct dose for your patient.

Recommended dose is 0.01 mg/kg body weight up to 0.5 mg maximum dose. May be repeated at 5–15-minute intervals up to 3 times while waiting for EMS to arrive.

First-Line Treatment: Epinephrine				Epinephrine Dose
	Age group	Range of weight (lb)	Range of weight (kg)*	Epinephrine autoinjector (0.1 mg, 0.15 mg, 0.3 mg)
Infants and children	1–6 months	9–19 lb	4–8.5 kg	off label
	7–36 months	20–32 lb	9–14.5 kg	0.1 mg [†]
	37–59 months	33–39 lb	15–17.5 kg	0.15 mg/dose
	5–7 years	40–56 lb	18–25.5 kg	0.15 mg/dose
	8–10 years	57–76 lb	26–34.5 kg	0.15 mg or 0.3 mg/dose
Teens	11–12 years	77–99 lb	35–45 kg	0.3 mg/dose
	13 years & older	100+ lb	46+ kg	0.3 mg/dose

note: If body weight is known, then dosing by weight is preferred. If weight is not known or not readily available, dosing by age is appropriate.

* Rounded weight at the 50th percentile for each age range

[†] 0.1 mg autoinjector is approved for use in 7.5 to 14 kg infants and children

► **commonly known as Benadryl**

Recommended dose is 1–2 mg/kg body weight every 4–6 hrs[†]

Optional Treatment: Diphenhydramine				Diphenhydramine dose calculations based on 1 mg/kg [†]
	Age group	Range of weight (lb)	Range of weight (kg)*	Liquid: 12.5 mg/5 mL Capsules or tablets: 25 mg or 50 mg
Infants and children	7–36 months	20–32 lb	9–14.5 kg	10–15 mg/dose [†]
	37–59 months	33–39 lb	15–17.5 kg	15–20 mg/dose [†]
	5–7 years	40–56 lb	18–25.5 kg	20–25 mg/dose [†]
	8–12 years	57–99 lb	26–45 kg	25–50 mg/dose [†]
Teens	13 years & older	100+ lb	46+ kg	50 mg/dose (up to 50 mg or 100 mg single dose) [†]

note: If body weight is known, then dosing by weight is preferred. If weight is not known or not readily available, dosing by age is appropriate.

* Rounded weight at the 50th percentile for each age range

[†] AAP. Red Book: 2021–2024, 32nd ed. (p. 66). Diphenhydramine maximum single dose for children younger than age 12 years is 40 mg, for children age 12 years and older, 100 mg.


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References:

1. [Medical Management of Vaccine Reactions in Children and Teens in a Community Setting](https://www.immunize.org/wp-content/uploads/catg.d/p3082a.pdf) (<https://www.immunize.org/wp-content/uploads/catg.d/p3082a.pdf>).
2. Lieberman P, Nicklas RA, Randolph C, et al. Anaphylaxis—a practice parameter update 2015. *Ann Allergy Asthma Immunol*. 2015 Nov;115(5):341-84.