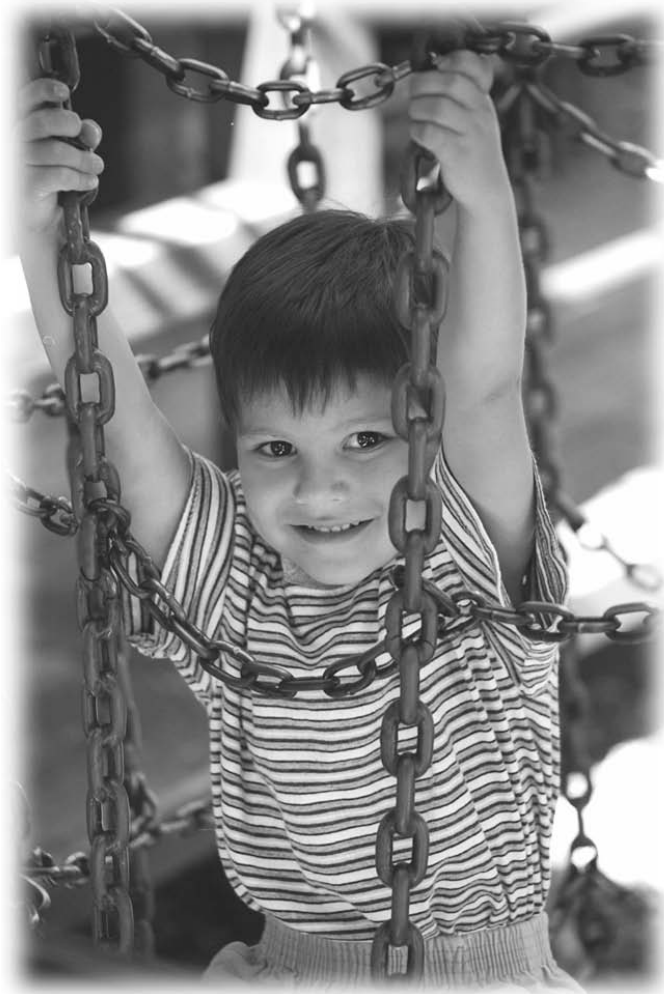


Colorado Immunization Manual

SECTION 4 Treatment of Vaccine Reactions



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SECTION 4

Treatment of Vaccine Reactions

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SUBJECT: VACCINE REACTION—ANAPHYLAXIS TREATMENT

VACCINE REACTION

- ✓ **PERSONNEL ADMINISTRATING VACCINE MUST BE PREPARED TO RECOGNIZE AND TREAT ANAPHYLAXIS.**

Anaphylaxis must be distinguished from syncope (fainting) caused by a vasovagal response that is the result of fear or anxiety and unrelated to an allergic reaction.

Symptoms of anaphylaxis can be MILD or SEVERE and can include:

REACTION	SYMPTOMS
MILD ALLERGIC REACTION	Agitation Coughing, sneezing Mild wheezing Pruritus (Itching), Erythema (Redness), Urticaria (Hives), Angioedema (Swelling of face, neck, lips hands, and feet).
SEVERE ALLERGIC REACTION	Severe Bronchospasm Laryngeal Edema Shock

- ✓ **Treatment of anaphylaxis must be IMMEDIATE and based on a PREDETERMINED INDIVIDUAL AGENCY POLICY.**
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SUBJECT: VACCINE REACTION—ANAPHYLAXIS TREATMENT PROTOCOL EXAMPLE

SAMPLE OF INDIVIDUAL AGENCY VACCINE REACTION PROTOCOL

ANAPHYLAXIS TREATMENT PROCEDURE

SEVERE REACTION

1. Call 911
2. Inject 0.01cc/kg (max 0.3cc) 1:1000 epinephrine SC as follows:
May repeat every 20 min. X 3.

AGE	DOSAGE
<12 MONTHS	0.05cc
1-4 YEARS	0.15cc
5-9 YEARS	0.20cc
>10 YEARS	0.30cc

3. In the event of cardiac arrest, administer CPR.

MILD REACTION

1. In case of a mild reaction, such as urticarial rash and itching of the skin, inject 0.25–2cc (2mg/kg) Benadryl intramuscular or give Benadryl PO, if individual can swallow capsules (25mg ages 5–12 years or 50mg ages ≥13 years/adults). In even milder cases give 12.5 to 25mg of oral benadryl every 4 hours. Note: Children with mild reactions should be referred to their physician for treatment.

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SUBJECT: VACCINE REACTION—ANAPHYLAXIS TREATMENT PROTOCOL EXAMPLE

SAMPLE OF INDIVIDUAL AGENCY VACCINE REACTION PROTOCOL

MANAGEMENT OF ANAPHYLAXIS FOLLOWING VACCINATION

Anaphylaxis, a potentially life-threatening acute systemic allergic reaction to a foreign substance, is extremely uncommon after immunization. Anaphylaxis must be distinguished from simple fainting (vasovagal syncope) which can occur before, during, or after injection. Anaphylaxis usually begins at least several minutes after injection of an offending substance. Initial symptoms typically include several of the following: sneezing, coughing, itching, "pins and needles" sensation of the skin (paresthesia), flushing, facial edema, wheals, urticaria, and anxiety. In severe cases, these symptoms may be followed by progressive dyspnea (with or without audible wheezing), hypotension, and tachycardia which may progress to shock and collapse.

— EMERGENCY PROCEDURES —

1. Call emergency medical/paramedic staff.
2. Open and maintain airway, provide oxygen and/or CPR as necessary.
3. Inject SC (subcutaneously)—not in the same limb as the vaccine injection—aqueous 1:1000 epinephrine (adrenalin). **The dosage is 0.01 mL/kg** or as follows:

WEIGHT	AGE	DOSAGE
6–11 #	<6 months	0.05 ml
12–22 #	6–12 months	0.10 ml
23–39 #	1–4 years	0.15 ml
40–59 #	5–9 years	0.20 ml
≥60 #	10+ years	0.3–0.5 ml

Epinephrine may be administered every 10 or 20 minutes up to a total of three (3) doses.

4. As an adjunct to epinephrine (but *not* a replacement) diphenhydramine hydrochloride (Benadryl), 50 mg/ml, can be given intramuscularly (at a different site from the epinephrine) at a dosage of 1–2 mg/kg every 4–6 hours. 100 mg is the maximum single dose or give diphenhydramine hydrochloride (Benadryl) PO, if individual can swallow capsules (25mg ages 5–12 years or 50mg ages ≥13 years/adults).
5. Emergency measures should be coordinated with local emergency/paramedic staff including, but not limited to, maintaining adequate airway and CPR.
6. If a client improves with this management and remains stable, a long-acting epinephrine injection may be given, and an oral antihistamine may be prescribed for the next 24 hours. Such clients should be observed for 12 hours following the onset of symptoms.

REFERENCES: 2003 Red Book, American Academy of Pediatrics, pages 63–66.

Colorado Immunization Manual, Colorado Department of Public Health and Environment, 9/1/1998; Section 4.