

Allergic Reaction / Anaphylaxis



History

- Onset and location
- Insect sting or bite
- Food allergy / exposure
- Medication allergy / exposure
- New clothing, soap, detergent
- Past history of reactions
- Past medical history
- Medication history

Signs and Symptoms

- Itching or hives
- Coughing / wheezing or respiratory distress
- Chest or throat constriction
- Difficulty swallowing
- Hypotension or shock
- Edema
- N/V

Differential

- Urticaria (rash only)
- Anaphylaxis (systemic effect)
- Shock (vascular effect)
- Angioedema (drug induced)
- Aspiration / Airway obstruction
- Vasovagal event
- Asthma or COPD
- CHF

Assess Symptom Severity / Suspected Exposure to Allergen

MILD
Skin Only

A	IV Procedure <i>if indicated</i>
	Diphenhydramine 25 - 50 mg IV / IM / IO

B	Monitor and Reassess Monitor for Worsening Signs and Symptoms
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MODERATE
2 + Body Systems

	Epinephrine 1:1000 IM 0.3 – 0.5 mg <i>if available</i>
B	Albuterol Nebulizer 2.5 – 5 mg (Max of 3 doses) <i>if indicated</i>
A	Diphenhydramine 25 - 50 mg IV / IM / IO

A	Epinephrine 1:1000 0.3 – 0.5 mg IM Repeat in 5 minutes if no improvement
	IV / IO Procedure Albuterol Nebulizer 2.5 – 5 mg +/- Ipratropium 0.5 mg (Max of 3 doses) <i>if indicated</i>
	Normal Saline Bolus 500 mL IV / IO Repeat as needed (Maximum 2 Liters)
P	Methylprednisolone 125 mg IV / IO

SEVERE
2 + Body Systems + hypotension
Or Isolated Hypotension

	Epinephrine 1:1000 IM 0.3 – 0.5 mg <i>if available</i>
B	Albuterol Nebulizer 2.5 – 5 mg (Max of 3 doses) <i>if indicated</i>
	Airway Protocol(s) AR 1 - 4 <i>if indicated</i>
	Hypotension / Shock Protocol AM 5 <i>if indicated</i>

Notify Destination or
Contact Medical Control

No improvement with IM Epinephrine
Epinephrine 1:10,000 IV / IO
See Pearls for dosing regimen

Allergic Reaction / Anaphylaxis



Epinephrine 1:1000 initial dose 0.3mg IM. If no response/improvement noted repeat at 0.5mg IM.
Medical Responders and EMTs must complete annual training to administer Epinephrine 1:1000.

Pearls

- **Recommended Exam: Mental Status, Skin, Heart, Lungs, Abdominal**
- **Anaphylaxis is an acute and potentially lethal multisystem allergic reaction.**
- **Epinephrine administration:**
 - **Drug of choice and the FIRST drug that should be administered in acute anaphylaxis (Moderate / Severe Symptoms.) IM Epinephrine should be administered in priority before or during attempts at IV or IO access.**
 - **Diphenhydramine and steroids have no proven utility in Moderate / Severe anaphylaxis and may be given only After Epinephrine. Diphenhydramine and steroids should NOT delay repeated Epinephrine administration.**
 - **In Moderate and Severe anaphylaxis Diphenhydramine may decrease mental status. Oral Diphenhydramine should NOT be given to a patient with decreased mental status and / or a hypotensive patient as this may cause nausea and / or vomiting.**
- **Anaphylaxis unresponsive to repeat doses of IM epinephrine may require IV epinephrine administration by IV push or epinephrine infusion. Contact Medical Control for appropriate dosing of Epinephrine 1:10000.**
- **Symptom Severity Classification:**
 - **Mild symptoms:**
 - **Flushing, hives, itching, erythema with normal blood pressure and perfusion.**
 - **Moderate symptoms:**
 - **Flushing, hives, itching, erythema plus respiratory (wheezing, dyspnea, hypoxia) or gastrointestinal symptoms (nausea, vomiting, abdominal pain) with normal blood pressure and perfusion.**
 - **Severe symptoms:**
 - **Flushing, hives, itching, erythema plus respiratory (wheezing, dyspnea, hypoxia) or gastrointestinal symptoms (nausea, vomiting, abdominal pain) with hypotension/poor perfusion or isolated hypotension.**
- **Allergic reactions may occur with only respiratory and gastrointestinal symptoms and have no rash / skin involvement.**
- **Angioedema** is seen in moderate to severe reactions and is swelling involving the face, lips or airway structures. This can also be seen in patients taking blood pressure medications like Prinivil / Zestril (lisinopril)-typically end in **-il**.
- **Hereditary Angioedema** involves swelling of the face, lips, airway structures, extremities, and may cause moderate to severe abdominal pain. Some patients are prescribed specific medications to aid in reversal of swelling. **Paramedic may assist or administer this medication per patient / package instructions.**
- **12 lead ECG and cardiac monitoring should NOT delay administration of epinephrine.**
- **EMR / EMT may administer Epinephrine IM and may administer from EMS supply.** Agency Medical Director may require contact of medical control prior to EMR / EMT administering any medication.
- **EMR / EMT may administer Epinephrine IM via AutoInjector or manual draw-up** per Agency Medical Director.
- **EMT may administer diphenhydramine by oral route only and may administer from EMS supply.** Agency Medical Director may require contact of medical control prior to EMT / EMR administering any medication.
- **EMT may administer Albuterol if patient already prescribed and may administer from EMS supply.** Agency Medical Director may require contact of medical control prior to EMT / EMR administering any medication.
- **The shorter the onset from exposure to symptoms the more severe the reaction.**