

Allergic Reaction/Anaphylaxis (103)

Adults	Pediatrics (13 years and under)
Public Safety First Aid Procedures: Only	Public Safety First Aid Procedures: Only
<ul style="list-style-type: none"> Assess ABC's Request EMS Administer Oxygen if patient has difficulty breathing If severe allergic reaction, administer epinephrine auto injector and monitor patient respiratory status and airway closely until EMS handoff. 	<ul style="list-style-type: none"> Assess ABC's Request EMS Administer Oxygen if patient has difficulty breathing If severe allergic reaction, administer epinephrine auto injector (EpiPen Jr) and monitor patient respiratory status and airway closely until EMS handoff
BLS Procedures: EMT's and Paramedics start here	BLS Procedures: EMT's and Paramedics start here
<ul style="list-style-type: none"> Pulse oximetry Administer Oxygen only if SpO2<94% or in respiratory distress If mild reaction, monitor patient closely for deterioration, transport in position of comfort if patient remains stable Moderate or severe reaction (see list in special considerations), administer Epinephrine auto injector or Epinephrine manually drawn 0.3 mg/IM of 1:1000 (optional scope only). Treat hypotension in accordance with Shock/Hypoperfusion Protocol (124). Rapid transport or ALS rendezvous 	<ul style="list-style-type: none"> Pulse Oximetry Administer Oxygen only if SpO2<94% or in respiratory distress If mild reaction, monitor patient closely for deterioration, transport in position of comfort if patient remains stable Moderate or severe reaction (see list in special considerations), administer Epinephrine auto injector (EpiPen Jr) or Epinephrine manually drawn 0.15 mg/IM of 1:1000 (optional scope only). Treat hypotension in accordance with Shock/Hypoperfusion Protocol (124). Rapid transport or ALS rendezvous
ALS Prior to Base Hospital Contact: Paramedic Only	ALS Prior to Base Hospital Contact: Paramedic Only
<ul style="list-style-type: none"> IV/Monitor Epinephrine 0.3 mg IM of 1:1000 If signs and symptoms unresolved administer Diphenhydramine 50 mg IM OR 25-50 mg slow IVP If unresolved, may repeat IM Epinephrine If severe distress initiate Push Dose Epinephrine 0.5 mL IVP every 1-5 minutes to Systolic B/P > 90 OR Epinephrine drip 2-8 mcg/min. Start at 2mcg/min and titrate to effect. If any signs of airway compromise or complaint of difficulty breathing initiate transport early. 	<ul style="list-style-type: none"> IV/Monitor Epinephrine 0.01 mg/kg IM of 1:1000 If signs and symptoms unresolved administer Diphenhydramine 1 mg/kg IV/IO/IM If unresolved, may repeat IM Epinephrine If severe distress initiate Push Dose Epinephrine 0.5 mL IVP every 1-5 minutes to Systolic B/P age 1-10 > 70 mmHg, over 10 years > 90 OR Epinephrine drip 0.1-1 mcg/kg/min. Start at lower dose and titrate to effect not to exceed adult dose. If any signs of airway compromise or complaint of difficulty breathing initiate transport early.
Base Hospital Contact Required	Base Hospital Contact Required

103 ALLERGIC REACTION/ANAPHYLAXIS

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Special Considerations

1. Signs and Symptoms of severe reaction (Anaphylaxis):
 - Respiratory distress (including but not limited to wheezing, stridor, or signs of bronchospasm)
 - Airway occlusion
 - Swelling to face and/or tongue
 - Tightness in throat and/or chest
 - Loss of voice
 - Hypotension/shock
 - Exposure to known allergen with symptoms
 - Itching and hives (with one or more of the symptoms listed above)
2. Allergic reactions and anaphylaxis commonly present with extreme variation of signs and symptoms between patients. True anaphylactic reactions progress very quickly. Rapid assessment and early transport should be implemented for these patients.
3. Epinephrine drip 2-8 mcg/min preparation:
 - **Epinephrine drip**
 - Begin with a 100mL bag of normal saline and apply medication label to indicate epinephrine drip.
 - Obtain 1 ampule or vial of epinephrine 1:1000
 - With a 10mL syringe and a filtered needle withdraw 0.8mg of epinephrine 1:1000
 - Remove filtered needle attach hypodermic needle and inject 1mg of epinephrine 1:1000 in labeled 100mL saline bag. Shake well.
 - Attach the 60 drops/mL IV tubing set to the extension set with flow controller (Dial-a-flow). Prime the line and set your desired drops, see below for rates.
 - 2mcg/min set rate to 15 drops
 - 4mcg/min set rate to 30 drops
 - 6mcg/min set rate to 45 drops
 - 8mcg/min set rate to 60 drops
4. Push dose epinephrine or epinephrine drip is indicated for major allergic reactions/anaphylaxis or fast onset of symptoms. Push dose epinephrine is preferred over drip for continued severe allergic reaction. If patient fails to respond to push dose epinephrine or if you expect to have a long transport time epinephrine drip shall be used.
 - Push dose epinephrine for profoundly hypotensive patients after standard treatments fail to improve blood pressure.

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- Push dose epinephrine is 1mL (0.1 mg) of 1 mg in 10 mL epinephrine (cardiac epinephrine 1:10,000) mixed with 9 mL of N/S resulting in Epinephrine 0.01 mg/mL.
 - Begin with an empty 10mL syringe and apply a medication label to indicate push dose epinephrine.
 - Withdraw 1 mL of 0.1 mg/mL preparation (cardiac epinephrine 1:10,000)
 - Withdraw 9 mL of normal saline. Shake well.
 - Mixture now provides 10 mL of epinephrine at a 10 mcg/mL concentration.
 - Push Dose: 0.5 mL (5 mcg) IV/IO, every 1-5 minutes.
- 5. Diphenhydramine is indicated for use after epinephrine in patients with respiratory distress or hypoperfusion. Diphenhydramine is the primary therapy for idiosyncratic reactions to Haldol or phenothiazine group medications. For Haldol or phenothiazine medication group reactions, Diphenhydramine IV push is indicated with bypass of other treatment listed in this protocol.