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

	Diphenhydramine 25 - 50 mg PO
	IV or IO Access Protocol UP 6 ***if indicated***
A	**Diphenhydramine 25 - 50 mg PO / IV / IM / IO**
	Histamine (H2) Blocker *If available*
B	Monitor and Reassess Monitor for Worsening Signs and Symptoms

MODERATE / SEVERE
2 + Body Systems +/- Hypotension

	Diphenhydramine 25 - 50 mg PO
	Epinephrine 1:1000 IM 0.3 – 0.5 mg Repeat every 5 minutes if no improvement
B	**Albuterol Nebulizer 2.5 – 5 mg** Repeat as needed x 3 ***if indicated***
A	**Epinephrine 1:1000 0.3 – 0.5 mg IM** Repeat every 5 minutes if no improvement
A	**Diphenhydramine 50 mg IV / IM / IO** ***if not given PO (See Pearls)***
	Airway Protocol(s) AR 1 - 4 ***if indicated***
	Hypotension/ Shock Protocol AM 5 ***if indicated***

May substitute Epinephrine 1:1000 IM with the following:
Epinephrine nasal spray 2mg IN
May repeat in 5 minutes x 1 in other nostril

	IV or IO Access Protocol UP 6
A	**Albuterol Nebulizer 2.5 – 5 mg +/- Ipratropium 0.5 mg (DuoNeb)** Repeat as needed x 3 ***if indicated***
A	**Pepcid 40mg IV/IO x 1**
A	**Normal Saline Bolus 500 mL IV / IO** Repeat as needed **Maximum 2 Liters**
A	**Decadron 10mg IV / IO / IM x1**
A	Consider TXA 1 gm IV/IO for severe Angioedema only
P	<u>No improvement with IM Epinephrine</u> **Epinephrine 1:10K 0.5 mg IV / IO** Repeat every 3-5 minutes
	Notify Destination or Contact Medical Control

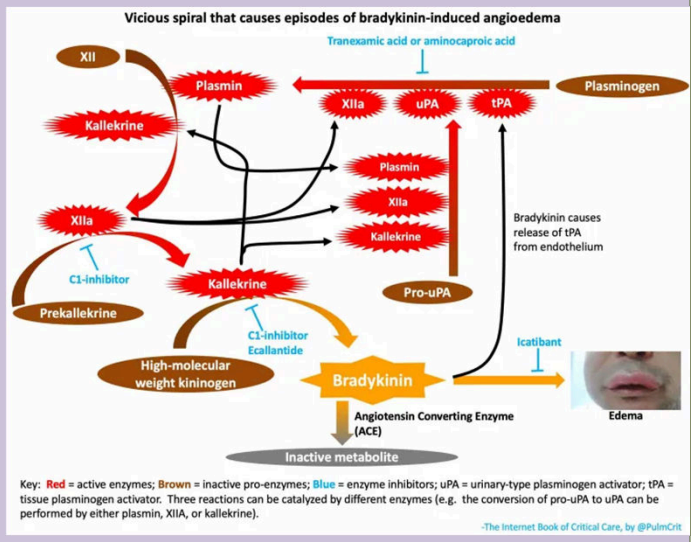
Allergic Reaction/ Anaphylaxis

Anaphylaxis usually has offending agents or known allergies/reactions. Hives / wheezing / itching

Angioedema may have no trigger / facial swelling with no hives / wheezing. May be due to ACE Inhibitor blood pressure medications -
- most common is Lisinopril or anything ending in **pril.

Hereditary angioedema brought on by stress or is spontaneous.

Facial swelling only - if moderate to severe symptoms give
Antihistamines / Steroids - Epi, If not helpful. TXA only true treatment in the field.



Pearls

- **Recommended Exam: Mental Status, Skin, Heart, Lungs, Abdominal**
- **Anaphylaxis is an acute and potentially lethal multisystem allergic reaction.**
- **<u>Epinephrine and administration:</u>**
  - **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.**
- **<u>Diphenhydramine and steroid administration:</u>**
  - **Diphenhydramine/ steroids have no proven benefit in Moderate/ Severe anaphylaxis.**
  - **Diphenhydramine/ steroids should NOT delay initial or repeat Epinephrine administration.**
  - **In Moderate and Severe anaphylaxis, Diphenhydramine may decrease mental status.**
  - **Diphenhydramine should NOT be given to a patient with decreased mental status and/ or a hypotensive patient as this may cause nausea, vomiting, and/ or worsening mental status.**
- **Anaphylaxis unresponsive to repeat doses of IM epinephrine may require IV epinephrine administration by IV push or epinephrine infusion.**
- **<u>Symptom Severity Classification:</u>**
  - **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.
- **Patients with moderate and severe reactions should receive a 12 lead ECG and should be continually monitored, but this should NOT delay administration of epinephrine.**
- **<u>EMR/ EMT:</u>**
  - **The use of Epinephrine IM is limited to the treatment of anaphylaxis and may be given only by autoinjector,** unless manual draw-up is approved by the Agency Medical Director and the NC office of EMS.
  - **Administration of diphenhydramine is limited to the oral route only**.
- **EMT administration of beta-agonist is not limited to only patients currently prescribed the medication,** and has been approved by Dr Koontz and the NC office of EMS.
- Dr Koontz does not require contact of medical control prior to EMT/ EMR administering any medication(s).
- The shorter the onset from exposure to symptoms the more severe the reaction.