**SIGNS**

1. Hypoxemia, difficulty breathing, tachypnea
2. Rash/ hives
3. Hypotension (may be severe)
4. Tachycardia
5. Bronchospasm/wheezing
6. Increase in peak inspiratory pressure (PIP)
7. Angioedema (potential airway swelling)

**RULE OUT**

- Pulmonary embolus
- Myocardial infarction
- Anesthetic overdose
- Pneumothorax
- Hemorrhage
- Aspiration

**CALL FOR HELP**

- INFORM TEAM
- PREPARE EPINEPHRINE 10 µg/mL OR 100 µg/mL
- CONSIDER PAUSING SURGERY

**CODE CART**

If patient becomes pulseless, start CPR, continue Epinephrine 1 mg IV boluses and large volume IV fluid. Go to PEA

**Consider and rule out other causes:**

- Pulmonary embolus
- Myocardial infarction
- Anesthetic overdose
- Pneumothorax
- Hemorrhage
- Aspiration
# ANAPHYLAXIS

## TREATMENT

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Discontinue potential allergens: colloid solutions, blood products, latex products, antibiotics</td>
</tr>
<tr>
<td>2.</td>
<td>Discontinue volatile anesthetic if hypotensive. Consider amnestic agent</td>
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<tr>
<td>3.</td>
<td>Increase to 100% O₂, high flow</td>
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<tr>
<td>4.</td>
<td>Administer IV fluid bolus. May require many liters!</td>
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<tr>
<td>5.</td>
<td>Administer epinephrine IV in escalating doses every two minutes. Start at 10-100 µg IV and increase dose every 2 minutes until clinical improvement is noted. May require large doses &gt; 1 mg. Consider early epinephrine infusion</td>
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<tr>
<td>6.</td>
<td>Consider vasopressin 2-4 units IV</td>
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<tr>
<td>7.</td>
<td>Treat bronchospasm with albuterol and epinephrine (if severe)</td>
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<tr>
<td>8.</td>
<td>Give H₁ antagonist (e.g. 25–50 mg IV)</td>
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<tr>
<td>9.</td>
<td>Consider corticosteroids (e.g. Methylprednisolone 125 mg IV) to decrease biphasic response</td>
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<tr>
<td>10.</td>
<td>Consider early intubation to secure airway prior to development of angioedema of airway</td>
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<tr>
<td>11.</td>
<td>Consider additional IV access and invasive monitors (arterial line)</td>
</tr>
</tbody>
</table>

## POST EVENT

**Consider the following interventions following the event:**

1. Send serum tryptase level (peaks ~ 90 min post-event)
2. If the event was moderate to severe, consider keeping patient intubated and sedated
3. Can recur with biphasic response: Consider monitoring patient for 24 hours post-recovery
4. Refer the patient for postoperative allergy testing