# Management of Medical Emergencies

## For all emergencies

1. Discontinue dental treatment
2. Call for assistance/someone to bring oxygen and emergency kit
3. Position patient: ensure open and unobstructed airway
4. Monitor vital signs
5. Be prepared to support respiration, support circulation, provide CPR, and call for emergency medical services

<table>
<thead>
<tr>
<th>Condition</th>
<th>Signs and symptoms</th>
<th>Treatment</th>
<th>Drug dosage</th>
<th>Drug delivery*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allergic reaction</strong> (mild or delayed)</td>
<td>Hives; itching; edema; erythema–skin, mucosa conjuctiva</td>
<td>1. Discontinue all sources of allergy-causing substances 2. Administer diphenhydramine</td>
<td>Diphenhydramine 1 mg/kg Child: 10-25 mg q.i.d. Adult: 25-50 mg q.i.d.¹</td>
<td>Oral</td>
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<tr>
<td><strong>Allergic reaction</strong> (sudden onset): anaphylaxis</td>
<td>Urticaria-itching, flushing, hives; rhinitis; wheezing/difficulty breathing; bronchospasm; laryngeal edema; weak pulse; marked fall in blood pressure; loss of consciousness</td>
<td>This is a true, life-threatening emergency 1. Call for emergency medical services 2. Administer epinephrine 3. Administer oxygen 4. Monitor vital signs 5. Transport to emergency medical facility by advanced medical responders</td>
<td>Epinephrine 1:1000 0.01 mg/kg every 5 minutes until recovery or until help arrives¹,²</td>
<td>IM or SubQ</td>
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<tr>
<td><strong>Acute asthmatic attack</strong></td>
<td>Shortness of breath; wheezing; coughing; tightness in chest; cyanosis; tachycardia</td>
<td>1. Sit patient upright or in a comfortable position 2. Administer oxygen 3. Administer bronchodilator 4. If bronchodilator is ineffective, administer epinephrine 5. Call for emergency medical services with transportation for advanced care if indicated</td>
<td>1. Albuterol (patient’s or emergency kit inhaler) 2. Epinephrine 1:1000 0.01 mg/kg every 15 minutes as needed¹,²</td>
<td>Inhale</td>
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<tr>
<td><strong>Local anesthetic toxicity</strong></td>
<td>Light-headedness; changes in vision and/or speech; metallic taste; changes in mental status–confusion; agitation; tinnitus; tremor; seizure; tachypnea; bradycardia; unconsciousness; cardiac arrest</td>
<td>1. Assess and support airway, breathing, and circulation (CPR if warranted) 2. Administer oxygen 3. Monitor vital signs 4. Call for emergency medical services with transportation for advanced care if indicated</td>
<td>Supplemental oxygen</td>
<td>Mask</td>
</tr>
<tr>
<td><strong>Local anesthetic reaction: vasoconstrictor</strong></td>
<td>Anxiety; tachycardia/ palpitations; restlessness; headache; tachypnea; chest pain; cardiac arrest</td>
<td>1. Reassure patient 2. Assess and support airway, breathing, and circulation (CPR if warranted) 3. Administer oxygen 4. Monitor vital signs 5. Call for emergency medical services with transportation for advanced care if indicated</td>
<td>Supplemental oxygen</td>
<td>Mask</td>
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<tr>
<td><strong>Overdose: benzodiazepine</strong></td>
<td>Somnolence; confusion; diminished reflexes; respiratory depression; apnea; respiratory arrest; cardiac arrest</td>
<td>1. Assess and support airway, breathing, and circulation (CPR if warranted) 2. Administer oxygen 3. Monitor vital signs 4. If severe respiratory depression, establish IV access and reverse with flumazenil 5. Monitor recovery (for at least 2 hours after the last dose of flumazenil) and call for emergency medical services with transportation for advanced care if indicated</td>
<td>Flumazenil 0.01 - 0.02 mg/kg (maximum: 0.2 mg); may repeat at 1 minute intervals not to exceed a cumulative dose of 0.05 mg/kg or 1 mg, whichever is lower)¹</td>
<td>IV (if IV access is not available, may be given IM)</td>
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| Overdose: narcotic      | Decreased responsiveness; respiratory depression; respiratory arrest; cardiac arrest | 1. Assess and support airway, breathing, and circulation (CPR if warranted)  
2. Administer oxygen  
3. Monitor vital signs  
4. If severe respiratory depression, reverse with naxolone  
5. Monitor recovery (for at least 2 hours after the last dose of naxolone) and call for emergency medical services with transportation for advanced care if indicated | Naxolone 0.1 mg/kg up to 2 mg; May be repeated to maintain reversal. | IV, IM, or SubQ |
| Seizure                 | Warning aura–disorientation, blinking, or blank stare; uncontrolled muscle movements; muscle rigidity; unconsciousness; postictal phase–sleepiness, confusion, amnesia, slow recovery | 1. Recline and position to prevent injury  
2. Ensure open airway and adequate ventilation  
3. Monitor vital signs  
4. If status is epilepticus, give diazepam and call for emergency medical services with transportation for advanced care if indicated | Diazepam  
Child up to 5 yrs: 0.2-0.5 mg slowly every 2-5 minutes with maximum=5 mg  
Child 5 yrs and up: 1 mg every 2-5 minutes with maximum=10 mg | IV |
| Syncope (fainting)      | Feeling of warmth; skin pale and moist; pulse rapid initially then gets slow and weak; dizziness; hypotension; cold extremities; unconsciousness | 1. Recline, feet up  
2. Loosen clothing that may be binding  
3. Ammonia inhales  
4. Administer oxygen  
5. Cold towel on back of neck  
6. Monitor recovery | Ammonia in vials | Inhal |