

**EPINEPHRINE 1:1,000 (Adrenalin®)**

**Classification:** Sympathomimetic agent (catecholamine)

**Actions:**

1. Increases cardiac output due to increased inotropy, chronotropy, dromotropy, and AV conduction (*b1* effect)
2. Relaxes smooth muscles of the respiratory tract (*b2* effect)
3. Increases systolic blood pressure due to increased cardiac output (*b1* effect) and vasoconstriction (*a* effect)
4. Increases coronary perfusion during CPR by increasing aortic diastolic pressure

**Indications:**

1. Cardiopulmonary arrest
2. Anaphylaxis
3. Respiratory distress with wheezing
4. Pediatric symptomatic bradycardia
5. Neonatal resuscitation
6. Suspected croup or epiglottitis

**Contraindications:**

1. **Use with caution in pregnancy.**
2. **Consider Base Hospital consultation if the patient has signs or history suggestive of MI, angina or hypertension**
3. **Age greater than 70 in cases of Respiratory Distress/Bronchospasm**

**Adverse Effects:**

**Cardiovascular**

Tachycardia  
Hypertension  
Chest pain  
Palpitations  
Ventricular fibrillation

**Neurological**

Anxiety  
Dizziness  
Headache  
Tremors  
Seizures

**Gastrointestinal**

Nausea/vomiting

**Administration:**

**ADULT DOSE**

- 1) **Severe Bronchospasm/Asthma/COPD:** 0.01 mg/kg IM, not to exceed 0.3mg, additional doses – Base Hospital order only

**Note: BLS Optional Skill (approved providers only):** 0.3 mg IM – no repeat

- 2) **Allergic reaction/anaphylaxis:** 0.01 mg/kg IM, not to exceed 0.5 mg, may repeat every 5 minutes, not to exceed 3 additional doses – base order only

**EPINEPHRINE 1:1,000 (Adrenalin®) CONTINUED****PEDIATRIC DOSE**

1) **Bronchospasm/Asthma:** 0.01 mg/kg, IM, not to exceed 0.3 mg, additional doses – Base Hospital order only

**Note: BLS Optional Skill (approved providers only):** 0.15 mg IM – no repeat

2) **Allergic reaction/anaphylaxis:** 0.01 mg/kg, **IM**, not to exceed 0.3 mg, may repeat every 5 minutes, not to exceed 3 doses

3) **Bradycardia:** The first line drug in pediatric bradycardia is epinephrine 1:10,000

**Notes:**

- IM administration is with 1-1½" needle in anterior/lateral thigh or deltoid.
- Tachycardia is not a contraindication to Epinephrine.