

**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 physician consultation if possible if the patient has history of MI, angina or hypertension.**

**Adverse Effects:**

<b>Cardiovascular</b>	<b>Neurological</b>
Tachycardia	Anxiety
Hypertension	Dizziness
Chest pain	Headache
Palpitations	Tremors
Ventricular fibrillation	Seizures

**Gastrointestinal**  
Nausea/vomiting

**Administration:**

**ADULT DOSE**

1. **Asthma:** 0.01 mg/kg IM, not to exceed 0.5 mg, may repeat every 5 minutes, not to exceed 3 doses
2. **Allergic reaction/anaphylaxis:** 0.01 mg/kg **IM**, not to exceed 0.5 mg, may repeat every 5 minutes, not to exceed 3 doses
3. If the patient is in extremis: 0.01 mg/kg **SL** injection, not to exceed 0.5 mg, may repeat every 5 minutes, not to exceed 3 doses

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

1. **Asthma:** 0.01 mg/kg, IM, not to exceed 0.3 mg, may repeat every 5 minutes, not to exceed 3 doses
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. If the patient is in extremis: 0.01 mg/kg **SL** injection, not to exceed 0.3 mg, may repeat every 5 minutes, not to exceed 3 doses
4. **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.
- SL injection is with a small 25 gauge ¼" TB syringe.
- Tachycardia is not a contraindication to Epinephrine.