

### EPINEPHRINE 1:10,000 (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 a 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. **Cardiac Arrest:** 1 mg IVP/IO, may repeat every 3-5 minutes
2. **Anaphylaxis: base physician order only** 0.01 mg/kg, slow IVP titrated, not to exceed 0.5 mg
3. **Asthma: base physician order only** 0.01 mg/kg, slow IVP titrated, not to exceed 0.5 mg

**PEDIATRIC DOSE**

1. **Cardiac Arrest:** 0.01 mg/kg (0.1 ml/kg) slow IVP/IO, not to exceed 0.3 mg per dose, repeat every 3-5 minutes

**EPINEPHRINE 1:10,000 (Adrenalin®) - continued**

2. **Symptomatic Bradycardia:** 0.01 mg/kg (0.1 ml/kg) slow IVP/IO, not to exceed 0.3 mg per dose, repeat every 3-5 minutes
3. **Anaphylaxis: base physician order only** 0.01 mg/kg (0.1 ml/kg) slow IVP titrated, not to exceed 0.3 mg
4. **Respiratory Distress: base physician order only** 0.01 mg/kg (0.1 ml/kg) slow IVP titrated, not to exceed 0.3 mg

**Notes:**

- Use Epinephrine with caution in older patients. If a patient is clearly in anaphylaxis, this is the drug of choice, even in older patients. If doubt exists, initiate early base hospital contact, prior to drug therapy.
- Tachycardia is not a contraindication to Epinephrine.
- **Base physician order** for Epinephrine 1:10,000, 0.01mg/kg titrated IV not to exceed 0.5mg for circulatory collapse from anaphylaxis.
- IM administration is with 1-1½" needle in anterior/lateral thigh or deltoid.