

**ORANGE COUNTY EMS
PARAMEDIC PHARMACOLOGY HANDBOOK**

MEDICATION: EPINEPHRINE HYDROCHLORIDE (Epinephrine)	ADULT DOSE	PEDIATRIC DOSE	SIDE EFFECTS	PRECAUTIONS/COMMENTS
<p>CLASSIFICATION: Sympathomimetic</p> <p>MECHANISM OF ACTION:</p> <ul style="list-style-type: none"> Stimulates alpha and beta adrenergic receptors: <ul style="list-style-type: none"> <u>Alpha</u> <ul style="list-style-type: none"> Peripheral vasoconstriction Increases perfusion pressure during chest compressions Increases diastolic pressure during hypertension. <u>Beta</u> <ul style="list-style-type: none"> Increases heart rate (increased chronotropy). Increases automaticity of heart cells (increased dromotropy). Bronchodilation. Inhibits release of histamine during allergic reaction. <p>INDICATIONS:</p> <ul style="list-style-type: none"> Asystole. Ventricular fibrillation/pulseless ventricular tachycardia. Pulseless electrical activity (PEA). Anaphylaxis. Bronchospasm. Allergic reaction. Bradycardia with poor perfusion, rate < 60 for pediatric patients. Asthma. <p>DOSAGE FORMS:</p> <ul style="list-style-type: none"> 1:10,000, 1 mg/10 mL prefilled syringe 1:1000, 1 mg/mL, 1 mL ampule 1:1000, 1 mg/1 mL, 30 mL vial 	<p>Asystole, ventricular fibrillation, pulseless ventricular tachycardia, PEA:</p> <ul style="list-style-type: none"> 1.0 mg 1:10,000 IVP/IO every 3-5 minutes. 10 mg 1:1000 ET once. <p>Asthma with respiratory failure:</p> <ul style="list-style-type: none"> 0.3 mg 1:1000 SQ once. <p>Acute allergic reactions:</p> <ul style="list-style-type: none"> 0.3 mg 1:1000 IM. Repeat once in 20 minutes if needed. <p>Anaphylaxis:</p> <ul style="list-style-type: none"> 0.3 mg 1:1000 IM. <p>Anaphylaxis in patients with absent palpable pulses or impending airway obstruction:</p> <ul style="list-style-type: none"> 0.1-0.3 mg 1:10,000 IVP/IO, may repeat as needed. 	<p>Asystole, ventricular fibrillation, pulseless ventricular tachycardia, PEA, bradycardia with poor perfusion and rate < 60:</p> <ul style="list-style-type: none"> 0.01 mg/kg 1:10,000 IVP/IO every 3-5 minutes. <p>Bronchospasm in severe distress:</p> <ul style="list-style-type: none"> 0.01 mg/kg 1:1000 SQ up to 0.3 mg maximum. <p>Acute allergic reactions:</p> <ul style="list-style-type: none"> 0.01 mg/kg 1:1000 IM up to 0.3 mg maximum. May repeat once in 20 minutes <p>Anaphylaxis :</p> <ul style="list-style-type: none"> 0.01 mg/kg 1:1000 IM up to 0.3 mg maximum <p>Anaphylaxis in patients with absent palpable pulses or impending airway obstruction:</p> <ul style="list-style-type: none"> 0.01 mg/kg 1:10,000 IVP/IO, maximum single dose 0.1 mg. May repeat as needed. 	<ul style="list-style-type: none"> Tachydysrhythmias and ventricular ectopy. Palpitations, tremor, anxiety, headache. Hypertension. 	<ul style="list-style-type: none"> May increase myocardial oxygen demands precipitating angina or extending an area of infarct. Increased risk for unstable tachycardia and cardiac rhythm disturbances. Acidosis may render epinephrine ineffective. Do not infuse simultaneously with sodium bicarbonate. Alkaline solutions inactivate epinephrine.