

Professional EMS Education Medication Profiles

	Epinephrine
Classification	-Sympathomimetic
Actions	<ul style="list-style-type: none"> -Stimulates both alpha and beta receptor sites -Most potent activator of alpha receptors -Beta 1 stimulation – positive chronotrope (Increased rate) positive inotrope (increased contractility) positive dromotrope (increased conduction) increased automaticity increased cardiac output increased myocardial work demand increased myocardial oxygen demand -Beta 2 stimulation - bronchial dilation Inhibition of mucous production -Alpha 1 stimulation - peripheral vasoconstriction Inhibition of histamine
Indications	<ul style="list-style-type: none"> -VF; Pulseless VT; Asystole; PEA; Bradycardia; -Anaphylaxis; Profound bronchospasm; Croup;
Contraindications	-None in emergency situations; cardiovascular disease; hypertension; tachycardia's; hypovolemic and cardiogenic shock
Side effects	-Restlessness; HA; CVA; palpitations; hypertension; Tachyarrhythmias; ; N / V;
Precautions	-Tachycardia; hypertension; angina; ischemia
Adult Dose	<ul style="list-style-type: none"> -Cardiac Arrest – 1 mg of 1:10,000; repeat every 3 – 5 minutes; -Bradycardia – 2 to 10 mcg / min titrated to effect; (continuous infusion – mix 1mg of 1:1000 in a 250 ml bag) -Anaphylaxis / severe bronchospasm – 0.3 to 0.5 mg of 1: 1,000;
Pediatric Dose	<ul style="list-style-type: none"> -Cardiac Arrest – 0.01 mg / kg of 1:10,000; repeat every 3 – 5 minutes; -Bradycardia – 0.1 to 1 mcg / min titrated to effect; (continuous infusion) -Anaphylaxis / severe bronchospasm – 0.01 mg / kg of 1: 1,000;
Route	IV; IO; IM; SQ; ET
How supplied	<ul style="list-style-type: none"> -1mg in 10 ml (0.1 mg / kg) – prefilled syringes -30 mg in 30 ml multi dose vial; 1 mg / ml single dose vial;
Onset / Duration	-IV - less than 1 min; 5-10 minutes IV
Half Life	-Rapid
Interaction	<ul style="list-style-type: none"> -May be deactivated – NaHCO₃ -Additive toxicities – sympathomimetics -Alpha – Beta blockers – antagonize effect