Dopamine

Generic Name:	**Brand Name**:	**Drug Class**:
Dopamine	Intropin	Catecholamine
Mechanism of Action:	**Time to Onset**:	**Duration of Effects**:
α_1 and β_1 agonist	Immediate	10 minutes after termination of infusion
Indications: • Hypotension secondary to cardiogenic shock • Bradycardia unresponsive to atropine	**Contraindications**: • Hypovolemia • 2º + heart blocks • Tachyarrhythmias Use caution in: • Trauma	**Possible Side Effects**: • Hypertension • Tachycardia • Ectopic beats • Peripheral cyanosis • Tissue sloughing • Nausea • Shortness of breath
Administration Route: • IV • IO	**Adult dose**: 2-20 mcg/kg/min	**Pediatric dose**: Same as adult

Dopamine affects receptors in different ways at different doses:

- Low dose (2-5 mcg/kg/min): Renal and mesenteric artery dilation, which can decrease blood pressure
- Moderate dose (5-10 mcg/kg/min): Increased inotropy and blood pressure
- High dose (10-20 mcg/kg/min): Vasoconstriction, increased peripheral vascular resistance, inotropy, and chronotropy.

$$\frac{dose \times weight\ (kg) \times 60}{Concentration\ in\ 1\ mL} = gtt/min$$

For a moderate dose (5 mcg/kg/min), 175 lb patient with a medication concentration of 1600 mcg/mL:

$$\frac{5 \times (\frac{175}{2.2}) \times 60}{1600} = 15\ gtt/min$$