DOPAMINE (Intropin®)  
(Base Physician Order Only)

Classification: Sympathomimetic agent (catecholamine)

Actions: **Moderate Dose: (5-10 mcg/kg/min) (β receptors)**
1. Increases inotropy and may increase chronotropy
2. Increases BP by stimulating β1 receptors increasing cardiac output with small increase in peripheral vascular resistance.

**High Dose: (Over 10-20 mcg/kg/min) (primarily α receptors, some β)**
1. Causes vasoconstriction
2. Increases inotropy and chronotropy
3. Increases BP by stimulating α and β1 receptors

Indications:
1. Symptomatic bradycardia persisting after prior therapies
2. Cardiogenic shock with signs/symptoms of CHF or not responding to fluid challenge
3. Hypotension

Contraindications:
1. Hypovolemia
2. Tachydysrhythmias

Adverse Effects:
- **Cardiovascular**
  Tachycardia, dyspnea
  Hypertension, increased O2 demand
  Ventricular irritability
  Chest pain

- **Gastrointestinal**
  Nausea, vomiting

Administration: **ADULT DOSE**
400 mg in 250 ml NS (1600 mcg/ml) IV drip, by base physician order: 5-20 mcg/kg/min, titrated to blood pressure.

**PEDIATRIC DOSE**
400 mg in 250 ml NS (1600 mcg/ml) IV drip, by base physician order: 5-20 mcg/kg/min, titrated to blood pressure.

Onset: 5 minutes

Duration: 5-10 minutes
DOPAMINE (Intropin®) - continued
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Notes:

- Consider expediting transport in cases requiring Dopamine administration.
- Dopamine may be inactivated by alkaline solutions such as Sodium Bicarbonate.
- Start in the largest possible vein and ensure patency prior to administration, as Dopamine is likely to cause tissue necrosis upon entering the interstitial space.
- Establish a second IV line for other medications, as the Dopamine infusion should not be interrupted.
- In the upper end of the moderate dosage range, $\alpha$ receptors are stimulated and peripheral vasoconstriction occurs.
- In the high dose range, $\alpha$ receptors override the dopaminergic receptors, resulting in decreased renal and mesenteric perfusion.

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<thead>
<tr>
<th>BODY WEIGHT</th>
<th>DOSE RANGES</th>
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<tbody>
<tr>
<td></td>
<td>5 mcg/kg dose</td>
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<tr>
<td></td>
<td>Beta Predominates</td>
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<tr>
<td>100 lbs.</td>
<td>45 kg</td>
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<tr>
<td>124 lbs.</td>
<td>55 kg</td>
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<tr>
<td>143 lbs.</td>
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<tr>
<td>165 lbs.</td>
<td>75 kg</td>
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<tr>
<td>187 lbs.</td>
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<td>210 lbs.</td>
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<tr>
<td>240 lbs.</td>
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<tr>
<td>260 lbs.</td>
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