

**Drug Name:** Nor epinephrine  
**Trade Name:** Nor adrenalin, Nor Epi, Levophed

**REVISED:** November 1, 2018

**Class:**

- Adrenergic Catecholamine
- Sympathomimetic
- Vasopressor

**Mechanism of Action:**

- $\alpha$ --peripheral vasoconstriction,
- Increases systemic vascular resistance and blood pressure

**Indications:**

- Refractory hypotension

**Contraindications:**

- Untreated hypovolemia
- Hypertension
- Suspected mesenteric Ischemia (relative)

**Precautions:**

- Ischemic heart disease
- Cerebrovascular insufficiency
- Pulmonary edema
- Deactivated/precipitates with alkaline solutions (NaHCO<sub>3</sub>)
- Increases myocardial oxygen demand
- Peripheral vascular Disease
- Pregnancy (C)
- Geriatrics
- Protect from light

**Dosage:**

Doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.

**Adults:**

**IV Infusion**

- IV/IO: 0.02 - 4 mcg/min titrated to 20 mcg/min
  - Titrated to maintain MAP>65 or SBP >100
  - Mix 4 mg/250 cc normal saline.

**Pediatrics:**

- IV/IO: 0.1 mcg/kg/minute initially, titrated to 2 mcg/kg/min.
  - Titrated to maintain MAP>65 or SBP >100

**Onset:**

- IV/IO: 1-2 min

**Duration:**

- Based on infusion duration

# IFT

REFERENCE ONLY

This document is for **reference only**. Please refer to Physician Order's for specific indications, dosages, and applications

IFT DRUG: NOR EPINEPHRINE

## Side Effects:

- Anxiety
- Tachycardia
- HTN
- Angina
- Arrhythmias
- V-Fib
- N/V
- Fear
- Headache
- Pallor
- Dizziness
- Tremors

## Interactions:

- Potentiated by MAOIs and TCAs
- Antagonized by beta blockers
- Precipitates in alkaline solutions

## PEARLS:

**Caution should be observed to avoid extravasation of norepinephrine during intravenous administration. Check the infusion site frequently for free-flow.**

- **Nor epinephrine infusions should be administered by infusion pump only.**
- **Nor epinephrine infusions should be established in the largest vein possible for the clinical situation.**
  - **Avoid administering nor epinephrine through an IV in the hand or leg.** These veins are more likely to be affected by vaso-occlusive diseases and more prone to ischemic complications.
  - Administration through IO in the leg is permitted
- **Nor epinephrine is necrotic to tissue.**
  - Observe and monitor for infiltration. Caution should be observed to avoid extravasation of norepinephrine during intravenous administration.
  - Check the infusion site frequently for free-flow.
  - Blanching along the course of the infused vein, sometimes without obvious extravasation, has been attributed to vasa vasorum constriction with increased permeability of the vein wall, permitting some leakage. **If blanching occurs**, consider changing the infusion site at intervals to allow the effects of local vasoconstriction to subside.
  - An ischemic area may be identified by a cool, hard, and pallid appearance.
- Ensure that aggressive fluid resuscitation is accomplished (unless contraindicated) prior to norepinephrine use.
- Discontinuation of infusion therapy should occur when adequate blood pressure and tissue perfusion are maintained following gradual tapering of the infusion rate. Physician consult advised.
- Sodium bicarbonate will inactivate nor-epinephrine; flush line well between administration.
- Concurrent/simultaneous administration of beta agonists may produce increases in heart rate and mild bronchodilation.

REFERENCE ONLY