

EPINEPHRINE (1:1,000)

Indication:

- Cardiac Arrest
- Bradycardia
- Allergic Reaction/Anaphylaxis
- Respiratory Distress with presumed bronchospasm

Contraindications: None in the Emergency setting

Side effects:

- Palpitations
- Anxiety
- Tremulousness
- Headache
- Dizziness
- Nausea/Vomiting
- Increased myocardial oxygen demand

Class: Sympathetic Agonist, Sympathomimetic. Epinephrine is a naturally occurring catecholamine. It is a potent alpha- and beta-adrenergic stimulant with more profound beta effects.

Mechanism of Action: Epinephrine works directly on alpha- and beta-adrenergic receptors with effects of increased heart rate, cardiac contractile force, increased electrical activity in the myocardium, increased systemic vascular resistance, increased blood pressure, and increased automaticity. It also causes bronchodilation.

Concentration:

- **Ampule:** 1.0 mg/1.0 ml OR **Multi-Dose Vial:** 30.0 mg/30.0 ml

Dosage:

Adult:

- **Allergic Reaction**
0.3 mg IM
Repeat every 5-10 minutes x 2 as needed (total of 3 doses)
Consider only giving ½ dose for elderly, known HTN, known heart disease, arrhythmia
- **Bronchospasm (Asthma)**
0.3 mg IM
Use with caution in heart disease, HTN, tachyarrhythmias, age greater than 50
- **Bradycardia Symptomatic**
Mix 1.0mg of Epi 1:1,000 into a 1,000 ml bag of NS
Piggyback into wide open IV/IO

EPINEPHRINE (1:1,000) cont.

Begin dose at 1.0 ml (1.0 mcg)/ 1.0 min
 Titrate by 1.0 mcg every minute to systolic B/P of 90 mmHg

Pediatric:

- **Allergic Reaction**
 0.01mg/kg (0.01 ml/kg) IM maximum 0.3 mg (0.3 ml)
 Repeat every 5 - 10 min as needed X 2 (three doses total)

- **Pediatric Bronchospasm/Asthma**
 0.01mg/kg (0.01 ml/kg) IM maximum 0.3 mg (0.3 ml)

3KG	4KG	5KG	6KG	7KG	8KG	9KG	10KG	11KG	12KG	13KG
0.03ml	0.04ml	0.05ml	0.06ml	0.07ml	0.08ml	0.09ml	0.10ml	0.11ml	0.12ml	0.13ml

14KG	15KG	16KG	17KG	18KG	19KG	20KG	21KG	22KG	23KG	24KG
0.14ml	0.15ml	0.16ml	0.17ml	0.18ml	0.19ml	0.2ml	0.21ml	0.22ml	0.23ml	0.24ml

25KG	26KG	27KG	28KG	29KG	30KG	31KG	32KG	33KG	34KG	35KG
0.25ml	0.26ml	0.27ml	0.28ml	0.29ml	0.3ml	0.3ml	0.3ml	0.3ml	0.3ml	0.3ml

36KG
0.3ml

- **Pediatric Bradycardia Symptomatic**
If IV/IO access not obtainable, 1:1,000 Epi, 0.1 mg/kg (0.1 ml/kg) **ET tube**.
 Repeat every 4 minutes until blood pressure is adequate for age.

- **Pediatric Cardiac Arrest w/o IV/IO access**
If IV/IO access not obtainable, 1:1,000 Epi, 0.1 mg/kg (0.1 ml/kg) **ET tube**.
 Repeat every 4 minutes to a max of 4.0mg

3KG	4KG	5KG	6KG	7KG	8KG	9KG	10KG	11KG	12KG	13KG
0.3ml	0.4ml	0.5ml	0.6ml	0.7ml	0.8ml	0.9ml	1.0ml	1.1ml	1.2ml	1.3ml

14KG	15KG	16KG	17KG	18KG	19KG	20KG	21KG	22KG	23KG	24KG
1.4ml	1.5ml	1.6ml	1.7ml	1.8ml	1.9ml	2.0ml	2.1ml	2.2ml	2.3ml	2.4ml

25KG	26KG	27KG	28KG	29KG	30KG	31KG	32KG	33KG	34KG	35KG
2.5ml	2.6ml	2.7ml	2.8ml	2.9ml	3.0ml	3.1ml	3.2ml	3.3ml	3.4ml	3.5ml

36KG
3.6ml

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