



Jackson Hole Fire/EMS Operations Manual

Approved by: _____

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Title: **Medication Protocol:
Dopamine**

Division: 17

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Willy Watsabaugh, Chief

DOPAMINE (Intropin) (Medication Protocol)

EMT-INTERMEDIATE PROVIDERS

NOT AUTHORIZED

PARAMEDIC PROVIDERS

STANDING ORDER

CLASS: Sympathomimetic

**PHARMACOLOGY/
ACTIONS:**

Dopamine is chemically related to epinephrine and norepinephrine. It acts primarily on alpha₁-, and beta₁-adrenergic receptors in dose-dependant fashion. At low doses, dopamine may act on dopaminergic receptors, causing renal, mesenteric, and cerebral vascular dilation. At moderate doses ("cardiac doses"), dopamine stimulates beta-adrenergic receptors, causing enhanced myocardial contractility, increased cardiac output, and a rise in blood pressure. At high doses ("vasopressor doses"), dopamine has an alpha-adrenergic effect producing peripheral arterial and venous constriction. Dopamine is commonly used in the treatment of hypotension associated with cardiogenic and vasogenic shock.

ONSET/DURATION: Onset: 2-4 min Duration: 10-15 min

**USE IN FIELD/
INDICATIONS:**

Hemodynamically significant hypotension in the absence of hypovolemia.
Symptomatic Bradycardia

CONTRAINDICATIONS:

Tachydysrhythmias, Ventricular fibrillation, Patients with pheochromocytoma

SIDE EFFECTS:

Dose-related tachydysrhythmias, HTN, increased myocardial oxygen demand (e.g.; ischemia)

DRUG INTERACTIONS:

Dopamine may be deactivated by alkaline solutions (sodium bicarbonate and furosemide). MAO inhibitors may potentiate the effect of dopamine. Sympathomimetics and phosphodiesterase inhibitors exacerbate dysrhythmia response. Beta-adrenergic antagonists may blunt inotropic response. When administered with phenytoin, hypotension, bradycardia, and seizures may develop

ROUTE: IV, IO

DOSAGE:	ADULT	PEDIATRIC (<45 kg)
	10-20 mcg/kg/min titrated to effect	10-20 mcg/kg/min IV/IO, titrated to effects

Recommend pre-hospital dosing: start at 10 mcg/kg/min.

Please refer to dopamine drip flow sheet for amounts and flow rates

PREGNANCY SAFETY: Category C – give only if potential benefits justifies risk to fetus

DOPAMINE DRIP FLOW SHEET

Maintenance infusion – mcg/kg/min for concentrations 1600 mcg/mL

Mcg/kg/min		10 mcg/kg/min	11 mcg/kg/min	12 mcg/kg/min	13 mcg/kg/min	14 mcg/kg/min	15 mcg/kg/min	20 mcg/kg/min
Pt. weight		Infusion Rates mL/hr						
Lbs	Kg							
77	35	13	14	16	17	18	20	26
88	40	15	16	18	19	21	22	30
99	45	17	19	20	22	24	25	34
110	50	19	21	22	24	26	28	38
121	55	21	23	25	26	29	31	41
132	60	22	25	27	29	31	34	45
143	65	24	27	29	32	34	37	49
154	70	26	29	31	34	37	39	52
165	75	28	31	34	37	39	42	56
176	80	30	33	36	39	42	45	60
187	85	32	35	38	41	45	48	64
198	90	34	37	40	44	47	51	68
209	95	36	39	43	46	50	53	71
220	100	38	41	45	49	53	56	75
231	105	40	43	47	51	55	59	79
242	110	41	46	50	54	58	62	83
253	115	43	48	52	56	61	65	86
264	120	45	50	54	59	63	68	90
275	125	47	52	56	61	66	71	94
286	130	49	54	58	63	68	73	98
297	135	51	56	61	66	71	76	101