

# Dobutamine

Indication: Cardiac decompensation & cardiopulmonary resuscitation

Available in 250ml premix bag of D5W at a concentration of 1mg/ml

Dosing:

Initiate at 0.5-1mcg/kg/min

Normal doses = 2-20 mcg/kg/min

Do NOT exceed 40 mcg/kg/min

Dosing Chart:

Patient Weight (kg)	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
0.5mcg/kg/min (ml/hr)	1.4	1.5	1.7	1.8	2.0	2.1	2.25	2.4	2.55	2.7	2.9	3	3.15	3.3	3.45	3.6
1mcg/kg/min (ml/hr)	2.7	3	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7	6	6.3	6.6	6.9	7.2
2mcg/kg/min (ml/hr)	5.4	6	6.6	7.2	7.8	8.4	9	9.6	10.2	10.8	11.4	12	12.6	13.2	13.8	14.4
3mcg/kg/min (ml/hr)	8.1	9	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1	18	18.9	19.8	20.7	21.6
4mcg/kg/min (ml/hr)	10.8	12	13.2	14.4	15.6	16.8	18	19.2	20.4	21.6	22.8	24	25.2	26.4	27.6	28.8
5mcg/kg/min (ml/hr)	13.5	15	16.5	18	19.5	21	22.5	24	25.5	27	28.5	30	31.5	33	34.5	36
6mcg/kg/min (ml/hr)	16.2	18	19.8	21.6	23.4	25.2	27	28.8	30.6	32.4	34.2	36	37.8	39.6	41.4	43.2
7mcg/kg/min (ml/hr)	18.9	21	23.1	25.2	27.3	29.4	31.5	33.6	35.7	37.8	39.9	42	44.1	46.2	48.3	50.4
8mcg/kg/min (ml/hr)	21.6	24	26.4	28.8	31.2	33.6	36	38.4	40.8	43.2	45.6	48	50.4	52.8	55.2	57.6
9mcg/kg/min (ml/hr)	24.3	27	29.7	32.4	35.1	37.8	40.5	43.2	45.9	48.6	51.3	54	56.7	59.4	62.1	64.8
10mcg/kg/min (ml/hr)	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72
11mcg/kg/min (ml/hr)	29.7	33	36.3	39.6	42.9	46.2	49.5	52.8	56.1	59.4	62.7	66	69.3	72.6	75.9	79.2
12mcg/kg/min (ml/hr)	32.4	36	39.6	43.2	46.8	50.4	54	57.6	61.2	64.8	68.4	72	75.6	79.2	82.8	86.4
13mcg/kg/min (ml/hr)	35.1	39	42.9	46.8	50.7	54.6	58.5	62.4	66.3	70.2	74.1	78	81.9	85.8	89.7	93.6
14mcg/kg/min (ml/hr)	37.8	42	46.2	50.4	54.6	58.8	63	67.2	71.4	75.6	79.8	84	88.2	92.4	96.6	100.8
15mcg/kg/min (ml/hr)	40.5	45	49.5	54	58.5	63	67.5	72	76.5	81	85.5	90	94.5	99	103.5	108
16mcg/kg/min (ml/hr)	43.2	48	52.8	57.6	62.4	67.2	72	76.8	81.6	86.4	91.2	96	101	105.6	110.4	115.2
17mcg/kg/min (ml/hr)	45.9	51	56.1	61.2	66.3	71.4	76.5	81.6	86.7	91.8	96.9	102	107	112.2	117.3	122.4
18mcg/kg/min (ml/hr)	48.6	54	59.4	64.8	70.2	75.6	81	86.4	91.8	97.2	103	108	113	118.8	124.2	129.6
19mcg/kg/min (ml/hr)	51.3	57	62.7	68.4	74.1	79.8	85.5	91.2	96.9	103	108	114	120	125.4	131.1	136.8
20mcg/kg/min (ml/hr)	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144

**Adverse effects:** Hypertension, tachycardia, PVC's, headache, angina, SOB, phlebitis, palpitations, bronchospasm

**Drug interactions:** Concomitant use with cocaine, ergot alkaloids or COMT-inhibitors (e.g. Comtan) can result in severe hypertension. Beta blockers and dobutamine counteract one another (dobutamine is a beta agonist)

**Contraindications:** Subaortic stenosis

**Nursing considerations:**

1. Monitor ECG: can potentiate tachycardia and arrhythmias
2. Monitor continual VS especially BP: can cause hypertension
3. Monitor IV site: phlebitis (if extravasation occurs, treat with phentolamine)
4. Phentolamine administration: Dilute 10mg with 10ml 0.9% NaCl and inject into the affected area.