

Appendix/ Resources



Updated March 2023

MEMORIAL EMS SYSTEM
PREHOSPITAL RESOURCE GUIDES

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Ketamine Dosing

The formula for calculating IBW is:

Men = 50 kg + 2.3 kg for every inch over 5 foot tall.

Males

Hgt	Kgs	Pain Control 0.3mg/kg IV/IO	Chemical Restraint 4mg/kg IM only	Medication assisted Intubation 2mg/kg IV/IO
5'0"	50	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'1"	52.3	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'2"	54.6	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'3"	56.9	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'4"	59.2	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'5"	61.5	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'6"	63.8	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'7"	66.1	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'8"	68.4	20mg 0.4mL	250mg 5 mL	125mg 2.5 mL
5'9"	70.7	20mg 0.4mL	300mg 6 mL	150mg 3 mL
5'10"	73	20mg 0.4mL	300mg 6 mL	150mg 3 mL
5'11"	75.3	25mg 0.5mL	300mg 6 mL	150mg 3 mL
6'0"	77.6	25mg 0.5mL	300mg 6 mL	150mg 3 mL
6'1"	79.9	25mg 0.5mL	300mg 6 mL	150mg 3 mL
6'2"	82.2	25mg 0.5mL	350 mg 7 mL	175mg 3.5 mL
6'3"	84.5	25mg 0.5mL	350 mg 7 mL	175mg 3.5 mL
6'4"	86.8	30mg 0.6ml	350 mg 7 mL	175mg 3.5mL
6'5"	89.1	30mg 0.6mL	400mg 8 mL	200mg 4.0mL
6'6"	91.4	30mg 0.6mL	400mg 8 mL	200mg 4.0mL
6'7"	93.7	30mg 0.6mL	400mg 8 mL	200mg 4.0mL

Ketamine Dosing

The formula for calculating IBW is:

Women = 45.5 kg + 2.3 kg for every inch over 5 foot tall.

Females

Hgt	Kgs	Pain Control 0.3mg/kg IV/IO	Chemical Restraint 4mg/kg IM only	Medication Assisted Intubation 2mg/kg IV/IO
4'8"	36.3	10mg 0.2 mL	150mg 3 mL	75mg 1.5 mL
4'9"	38.6	10mg 0.2 mL	150mg 3 mL	75mg 1.5 mL
4'10"	40.9	10mg 0.2 mL	150mg 3 mL	75mg 1.5 mL
4'11"	43.2	15mg 0.3 mL	150mg 3 mL	75mg 1.5 mL
5'0"	45.5	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'1"	47.8	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'2"	50.1	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'3"	52.4	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'4"	54.7	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'5"	57	15mg 0.3 mL	200mg 4 mL	100mg 2 mL
5'6"	59.3	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'7"	61.6	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'8"	63.9	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'9"	66.2	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'10"	68.5	20mg 0.4 mL	250mg 5 mL	125mg 2.5 mL
5'11"	70.8	20mg 0.4 mL	300mg 6 mL	150mg 3 mL
6'0"	73.1	25mg 0.5ml	300mg 6 mL	150mg 3ml
6'1"	75.4	25mg 0.5ml	350mg 7 ml	175mg 3.5ml
6'2"	77.7	25mg 0.5ml	350mg 7 ml	175mg 3.5ml
6'3"	80	25mg 0.5ml	350mg 7 ml	175mg 3.5ml
6'4"	82.3	25mg 0.5ml	350mg 7 ml	175mg 3.5ml

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Quick Reference Peds Weight/ Vital Signs

****Per Memorial EMS System protocol, do not exceed the adult dose when administering pediatric medications.**

Approximate weight based on age:

<u>Age</u>	<u>Weight</u>
Newborn	3 kg / 7 lbs
2 months	5 kg / 8 lbs
6 months	7 kg / 15 lbs
1 year	10 kg / 22 lbs
5 years	20 kg / 44 lbs
10 years	30 kg / 66 lbs
15 years	Adult values

Normal Pediatric Vital Sign Ranges			
	Heart Rate	Respiratory Rate	Minimum Blood Pressure
Infant	100-160 bpm	30-60 rpm	> 60mmHg systolic
Toddler	90-150 bpm	24-40 rpm	> 70mmHg systolic
Preschooler	80-140 bpm	22-34 rpm	> 75mmHg systolic
School Age	70-120 bpm	18-30rpm	> 80mmHg systolic
Adolescent	60-100 bpm	12-16 rpm	> 90mmHg systolic

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Quick Reference Peds Morphine/Fentanyl Dosing

Morphine Sulfate	0.1mg/kg IV/IM (Max single dose: 4 mg) every 15 minutes (I.V.) and 30 minutes (I.M.) to reduce the patient's anxiety and severity of pain.
Fentanyl	1mcg/kg IV over 2 minutes for pain (Max single dose: 50mcg). Fentanyl 1mcg/kg may be repeated every 15 minutes (I.V.). If unable to establish IV access may administer Intranasal Fentanyl. (See intranasal dosing sheet of <i>Pediatric Prehospital Care Manual</i>).

Intranasal Fentanyl Dosing Chart

Patient Weight	Dosage (2mcg/kg)	Dead Space Volume
3-5kg (6-11 Lbs)	10 mcg (0.2 ml)	(+0.1 ml)
6-10kg (13-22 Lbs)	20 mcg (0.4. ml)	(+0.1 ml)
11-15kg (24-33 Lbs)	30 mcg (0.6 ml)	(+0.1 ml)
16-20kg (35-44 Lbs)	40 mcg (0.8 ml)	(+0.1 ml)
21-25kg (46-55 Lbs)	50 mcg (1.0 ml)	(+0.1 ml)
26-30kg (57-66 Lbs)	60 mcg (1.2 ml)	(+0.1 ml)
31-35kg (68-77 Lbs)	70 mcg (1.4 ml)	(+0.1 ml)
36-40kg (79-88 Lbs)	80 mcg (1.6 ml)	(+0.1 ml)
41-45kg (90-99 Lbs)	90 mcg (1.8 ml)	(+0.1 ml)
46-50kg (101-110 Lbs)	100 mcg (2.0 ml)	No Extra
51-55kg (112-121 Lbs)	100 mcg (2.0 ml)	No Extra
56-60kg (123-132 Lbs)	100 mcg (2.0 ml)	No Extra
61-70kg (134-154 Lbs)	100 mcg (2.0 ml)	No Extra
71-80kg (156-176 Lbs)	100 mcg (2.0 ml)	No Extra
81-90kg (178-198 Lbs)	100 mcg (2.0 ml)	No Extra
91-100kg (200-220 Lbs)	100 mcg (2.0 ml)	No Extra

**Max 1 ml per nare

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Quick Reference Peds Versed Dosing

Intranasal Midazolam (Versed) Dosing Chart

Patient Age (years)	Weight	5mg/5mL Concentration		10mg/2mL Concentration	
		Dose (mg)	Dose (mL)	Dose (mg)	Dose (mL)
Neonate	3kg (6) Lbs	0.6 mg	0.7 ml	0.6 mg	0.3 mL
< 1 yr.	6kg (13) Lbs	1.2 mg	1.3 ml	1.2 mg	0.4 mL
1	10kg (22) Lbs			2.0 mg	0.5 mL
2	14kg (30) Lbs			2.8 mg	0.7 mL
3	16 kg (35) Lbs			3.2 mg	0.8 mL
4	18kg (40) Lbs			3.6 mg	0.9 mL
5	20kg (44) Lbs			4.0 mg	1.0 mL
6	22kg (48) Lbs			4.4 mg	1.0 mL
7	24kg (53) Lbs			4.8 mg	1.1 mL
8	26kg (57) Lbs			5.2 mg	1.2 mL
9	28kg (62) Lbs			5.6 mg	1.3 mL
10	30kg (66) Lbs			6.0 mg	1.4 mL
11	32kg (70) Lbs			6.4 mg	1.4 mL
12	34kg (75) Lbs			6.8 mg	1.5 mL
Small Teenager	40kg (88) Lbs			8.0 mg	1.8 mL
Full Grown Teen or Adult	>50kg (>110) Lbs			10.0 mg	2.0 mL

For Children: Total weight (kg) x 0.2 mg = total mg dose of Midazolam, maximum dose of 10 mg

*Volume is based on the calculated dose PLUS 0.10 mL dead space in the device.

The total volume is then rounded off to the next highest 0.1 mL. In some children a higher dose may be needed (0.3 mg/kg)

Midazolam (Versed): 0.2mg/kg **IM** (Max single dose: 5mg)

Midazolam (Versed): 0.1mg/kg **IV/IO**
(Max single dose: 2.5 mg)
over 1 minute for seizure activity.

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Pediatric Cyanokit dosing

COLOR	DOSE	WEIGHT
GREY	14 ml _____ (350mg)	5 KG
PINK	20 ml _____ (490mg)	7 KG
RED	25 ml _____ (630mg)	9 KG
PURPLE	31 ml _____ (770mg)	11 KG
YELLOW	39 ml _____ (980mg)	14 KG
WHITE	50 ml _____ (1260mg)	18 KG
BLUE	62 ml _____ (1540mg)	22 KG
ORANGE	78 ml _____ (1960mg)	28 KG
GREEN	100 ml _____ (2520mg)	36 KG

!!MUST USE A SYRINGE TO PUSH OVER 15 MINUTES!!

ADULT DOSE IS 200ml over 15mins IV (5000mg)

