

Basic Ventilator Setup



Important to know

- Positive-pressure ventilation can cause lung injury.
- Our choice of ventilation mode can minimise this damage
- The tidal volume, rate and PEEP and inspired oxygen all need to be carefully selected
- The proposed initial settings can be revised according to the patient's individual needs
- These settings may not be suitable for patients with acute severe asthma or a head injury

Ventilator Mode

- Choose PRVC (On the Servo-U) or VC+(on the Puritan Bennett)
- These are pressure-controlled modes which guarantee the tidal volume, whilst minimising peak pressure.

Tidal Volume and rate

- Work out the predicted body weight (PBW) based on the patient's height
- Select a tidal volume of 6ml/kg (PBW), and an initial rate of 12-20/minute, depending on the patient's needs.

Oxygen and PEEP

- A target PaO₂ of 8-10 kPa is usually appropriate
- Set the PEEP and FiO₂ according to the sliding scale overleaf



Oxygen and PEEP settings

FiO2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0
PEEP	5	5	8	8	10	10	10	12	14	14	14	16	18	18

Predicted Body Weight (Males)

HEIGHT (ft'in")	HEIGHT (m)	PBW (kg)	6 ml/kg	7 ml/kg	8 ml/kg
4' 9"	1.45	43.1	259	302	345
4' 10"	1.47	45.4	272	318	363
4' 11"	1.50	47.7	286	334	382
5' 0"	1.52	50	300	350	400
5' 1"	1.55	52.3	314	366	418
5' 2"	1.57	54.6	328	382	437
5' 3"	1.60	56.9	341	398	455
5' 4"	1.63	59.2	355	414	474
5' 5"	1.65	61.5	369	431	492
5' 6"	1.68	63.8	383	447	510
5' 7"	1.70	66.1	397	463	529
5' 8"	1.73	68.4	410	479	547
5' 9"	1.75	70.7	424	495	566
5' 10"	1.78	73	438	511	584
5' 11"	1.80	75.3	452	527	602
6' 0"	1.83	77.6	466	543	621
6' 1"	1.85	79.9	479	559	639
6' 2"	1.88	82.2	493	575	658
6' 3"	1.91	84.5	507	592	676
6' 4"	1.93	86.8	521	608	694
6' 5"	1.96	89.1	535	624	713
6' 6"	1.98	91.4	548	640	731
6' 7"	2.01	93.7	562	656	750
6' 8"	2.03	96	576	672	768
6' 9"	2.06	98.3	590	688	786
6' 10"	2.08	100.6	604	704	805
6' 11"	2.11	102.9	617	720	823
7' 0"	2.13	105.2	631	736	842

Predicted Body Weight (Females)

HEIGHT (ft'in")	HEIGHT (m)	PBW (kg)	6 ml/kg	7 ml/kg	8 ml/kg
4' 9"	1.45	38.6	232	270	309
4' 10"	1.47	40.9	245	286	327
4' 11"	1.50	43.2	259	302	346
5' 0"	1.52	45.5	273	319	364
5' 1"	1.55	47.8	287	335	382
5' 2"	1.57	50.1	301	351	401
5' 3"	1.60	52.4	314	367	419
5' 4"	1.63	54.7	328	383	438
5' 5"	1.65	57	342	399	456
5' 6"	1.68	59.3	356	415	474
5' 7"	1.70	61.6	370	431	493
5' 8"	1.73	63.9	383	447	511
5' 9"	1.75	66.2	397	463	530
5' 10"	1.78	68.5	411	480	548
5' 11"	1.80	70.8	425	496	566
6' 0"	1.83	73.1	439	512	585
6' 1"	1.85	75.4	452	528	603
6' 2"	1.88	77.7	466	544	622
6' 3"	1.91	80	480	560	640
6' 4"	1.93	82.3	494	576	658
6' 5"	1.96	84.6	508	592	677
6' 6"	1.98	86.9	521	608	695
6' 7"	2.01	89.2	535	624	714
6' 8"	2.03	91.5	549	641	732
6' 9"	2.06	93.8	563	657	750
6' 10"	2.08	96.1	577	673	769
6' 11"	2.11	98.4	590	689	787
7' 0"	2.13	100.7	604	705	806