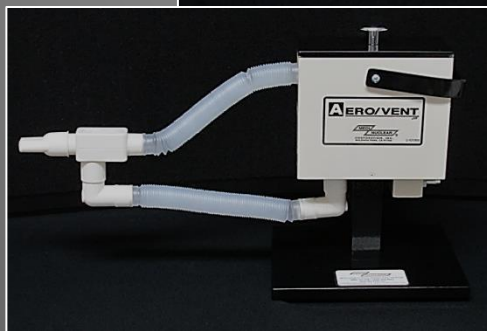
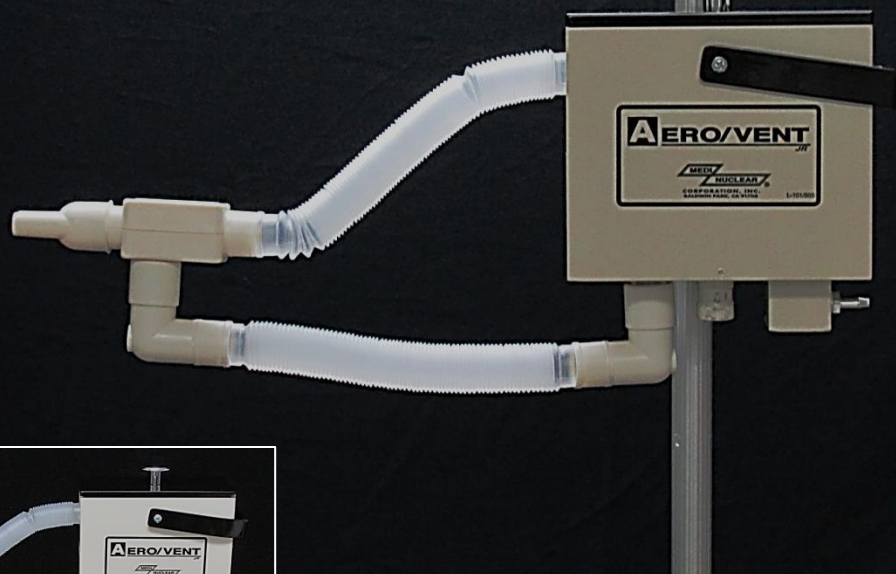


# AERO/VENT<sup>TM</sup> "Jr"



## Step by Step Instructions

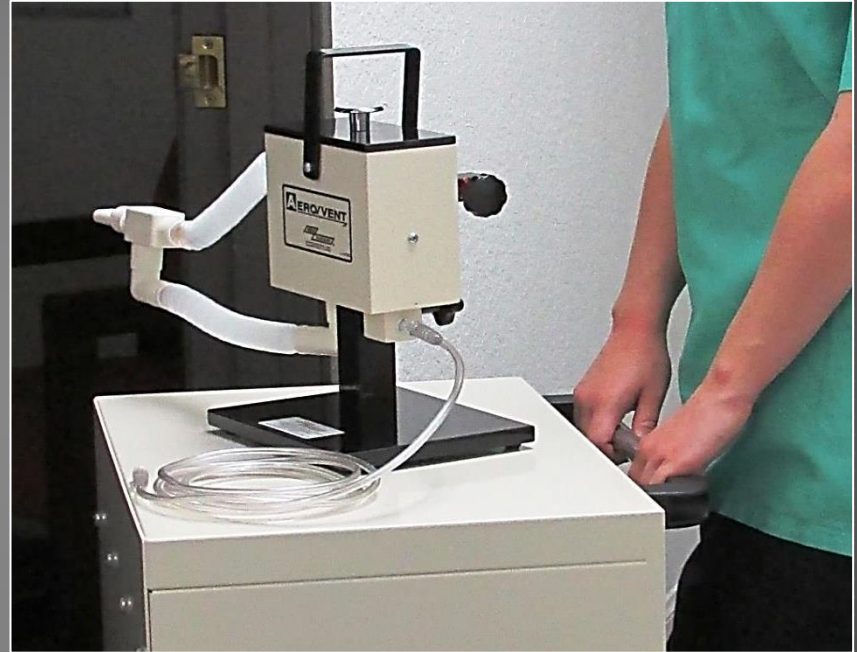


# Aero/Vent™ Jr. Overview

Medi/Nuclear's Aero/Vent™ Jr. is a two tube system that eliminates dead space and provides efficient radioaerosol delivery.

Unidirectional airflow allows for the radioaerosol particles of  $^{99m}\text{Tc}$ -DTPA, or an equivalent alternative, to be immediately available upon inhalation.

An airflow control device is used instead of one way valves, thus eliminating restricted breathing.

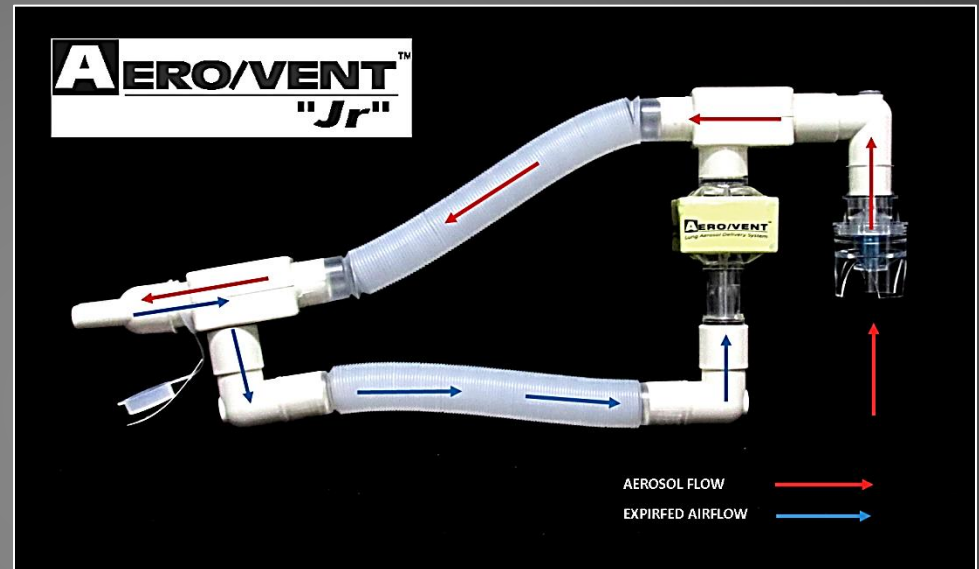


As a patient inhales, medication from the nebulizer moves through the top tube, and into the mouthpiece.

When the patient exhales, the exhalation is directed through the bottom tube and into a HEPA filter.

During exhalation, air continues to flow through the nebulizer and into the top tube.

When the next breath is taken, the patient immediately inhales the medication that has filled the top tube.



# Aero/Vent™ Jr. Assembly

- Remove the components from the plastic bag:
  - Aero/Vent™ Jr. Assembly (manifold with attached nebulizer, HEPA filter, and breathing tubes with Flow Control Block).
  - Small bag containing mouthpiece, nose clip, and “Caution Radioactive Material” label.

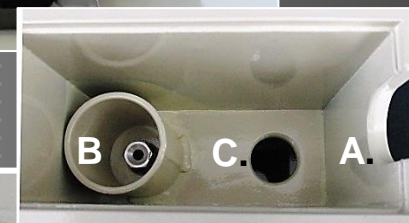
**Note:** Retain the re-sealable bag for disposal of the Aero/Vent™ Jr. after the ventilation study.





- Open the lid of Aero/Vent™ Jr. shield and install the Aero/Vent™ Jr. manifold.
  - A. The upper/attached breathing tube will fit through the slot at the top of the shield.
  - B. The nebulizer will be directed into the lead cylinder and into the silver oxygen/air pressure port.
  - C. The HEPA filter will extend through the exhaust opening at the bottom.
- Give the kit a gentle push from the top, or gently rock it, to make sure the nebulizer is securely seated.

**Caution:** Excessive force or aggressively wiggling the kit may damage the nebulizer tip, preventing the proper seating of the kit and adequate mist production.



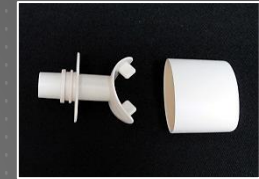
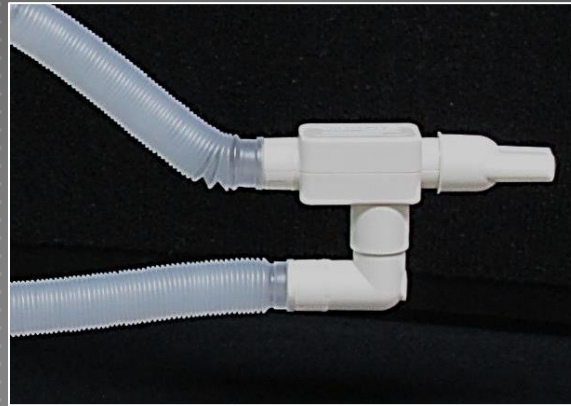
- While holding down the Aero/Vent™ Jr. manifold, attach the elbow on the free end of the second breathing tube, to the HEPA filter.

The HEPA filter can be reached through the exhaust opening in the underside of the Aero/Vent™ Jr. shield.

- Recheck the seating of the Aero/Vent™ Jr. manifold in the shield.



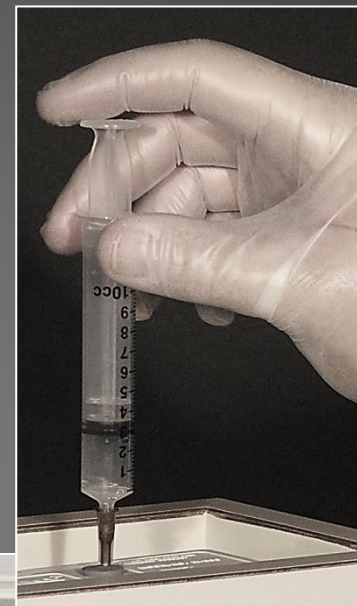
- Attach the mouthpiece to the patient port. If desired, an air-filled face mask (#MN5045) or the Safety Shield™ Mouthpiece (#MNMP-500) may be used instead.



- Connect the oxygen tube to the chrome inlet on the front of the Aero/Vent™ Jr. lead shield. Use only the provided oxygen tube (#IV-605). Other oxygen tubes may be slightly over-sized and could cause oxygen leakage.



- Prepare  $^{99m}\text{Tc}$ -DTPA ,or an equivalent alternative, in accordance with the manufacturer's instructions.
- Using a shielded syringe and needle, inject 40 mCi/2 mL of  $^{99m}\text{Tc}$ -DTPA solution through the center of the grey stopper in the top of the Aero/Vent™ Jr. manifold and into the nebulizer.
- Prior to closing the Aero/Vent™ Jr. shield, ensure that the manifold is seated firmly into the silver oxygen/air pressure port.
- Close the lid of the Aero/Vent™ Jr. shield.





# Aero/Vent™ Jr. Operation

- Place the mouthpiece in the patient's mouth.
- Place the nose clip on the patient's nose, unless using a face mask.
- Prior to turning on the oxygen/air, instruct the patient to take several test breaths from the system.



- Gradually turn on the oxygen/air regulator, adjusting the flow rate to 10-12 liters/minute.

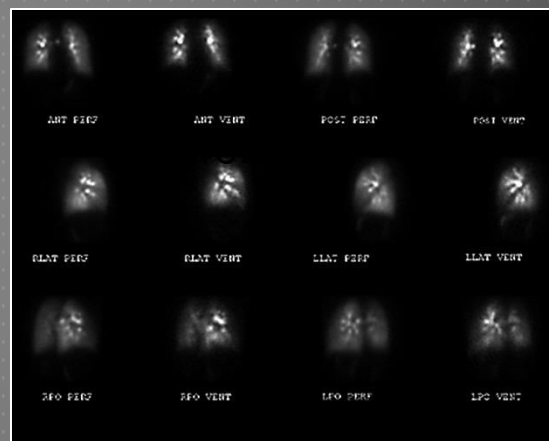
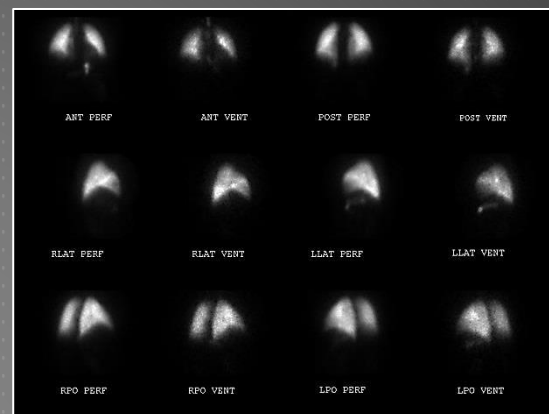
**Caution:** At normal 50 PSI pressure for the oxygen/air supply, a sudden increase of flow from 0 to 10 liters/minute may blow the air line off of the Aero/Vent™ Jr. shield.

- Instruct the patient to breathe normally until the desired amount of radioactivity is delivered to the lungs. Breathing time should be approximately 3 minutes if the assembly recommendations are followed.

**Caution:** To prevent possible radiation leakage into the environment, be prepared throughout the inhalation period to shut off the oxygen flow immediately if the patient releases the mouthpiece.

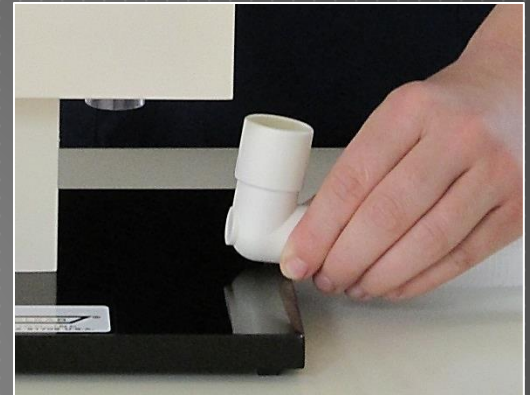


- After inhalation, turn off the oxygen/air and instruct the patient to continue breathing through the mouthpiece for additional four or five tidal breaths to clear the system of aerosol.
- Remove the nose clip and the mouthpiece from the patient.
- Have the patient expel any saliva into a disposable towel and discard the towel into the plastic bag.
- Start the patient imaging procedure as soon as it is convenient. Imaging time should be approximately one minute for 100-150,000 count images.



# Aero/Vent™ Jr. Disposal

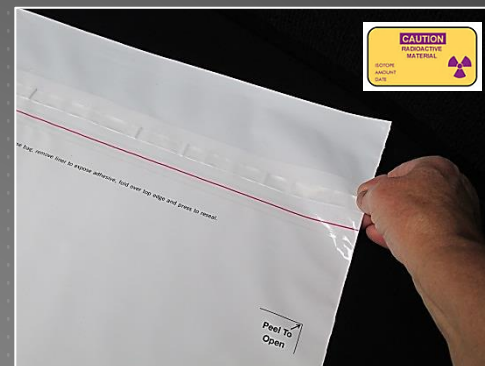
- Be sure the oxygen/air supply is off.
- Disconnect the elbow from the bottom of the HEPA filter.
- Remove the Aero/Vent™ Jr. shield lid and remove the used radioaerosol kit from the shield.
- Disconnect oxygen tubing from the oxygen/air source.



**Warning:** Disconnecting the oxygen line before removing kit may result in a vacuum sufficient enough to pull liquid into the oxygen port which could result in contamination. Please disconnect in the steps shown above.



- Place the kit in the re-sealable disposal bag. Remove seal strip from the bag to expose the unused tape. Seal the bag securely.
- Quickly attach the radiation label, and place the kit in a shielded disposal area to allow for radioactive decay.
- Discard decayed waste according to the radioactive waste procedures established by your facility.



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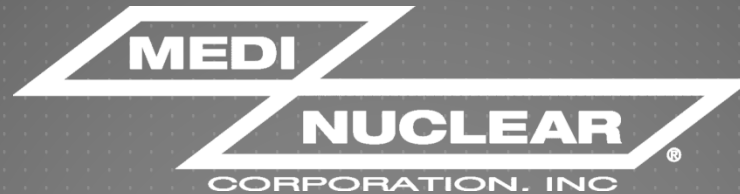
4610 Littlejohn Street, Baldwin Park, CA 91706

# Aero/Vent™ Jr. Ordering Information

Catalog No.	Product Description	Qty/ Units
AV-100H	Aero/Vent™ Jr. Radioaerosol Kit Two Tube System	24/cs
AV-100HM	Aero/Vent™ Jr. Radioaerosol Kit with Mask Two Tube System	24/cs
AV-100HS	Aero/Vent™ Jr. Radioaerosol Kit with Safety Shield™ Mouthpiece, Two Tube System	24/cs
AV-100HV	Aero/Vent™ Jr. Ventilator Kit for ventilator dependent patients	6/cs
AV-101A	Aero/Vent™ Jr. Pole Mount/Table Top Lead Shield, Aluminum	Each
IV-605	Oxygen Supply Tubing	3/pk



For additional information, please contact:



800.321.5981 / 626.960.9822

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[www.medinuclear.com](http://www.medinuclear.com)

We're here to be of assistance!

