VAPOR-CLEAN

medical sales & service

Activated Charcoal to Prepare an Anaesthetic Machine for the Susceptible Patient

Removes unwanted anaesthetic gas from the breathing circuit.

The internal components of modern anaesthetic machines capture and hold volatile anaesthetics, These anaesthetic vapor are released when the machine is used for a new patient. Even trace amounts of vapor can be harmful for susceptible patients. Flushing anaesthetic machines with high fresh gas flow for an extended time before a case helps decrease the risk to susceptible patients. Rather than waiting for the flush to be effective, Vapor-Clean activated charcoal filters instantly prevent desflurane, sevoflurane and isoflurane molecules from reaching the patient. Simply connect inspiratory and expiratory Vapor-Clean filters to the anaesthetic machine and connect new breathing circuit hoses to immediately deliver a vapor-free anaesthetic.

- Vapor-Clean removes more than 99% of the anaesthetic vapors
- Vapor-Clean activated charcoal filters prepare an anaesthetic machine for a susceptible patient in less than one minute.
- Vapor-Clean removes doubt about duration and effectiveness of flushing the anaesthetic machine.
- Vapor-Clean is the ONLY FDA cleared activated charcoal product specifically designed to remove anaesthetic agent from the anaesthetic breathing circuit.

NO EMERGENCY CART OR IS COMPLETE WITHOUT THE VAPOR-CLEAN

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Using the Vapor-Clean In an MH-Crisis

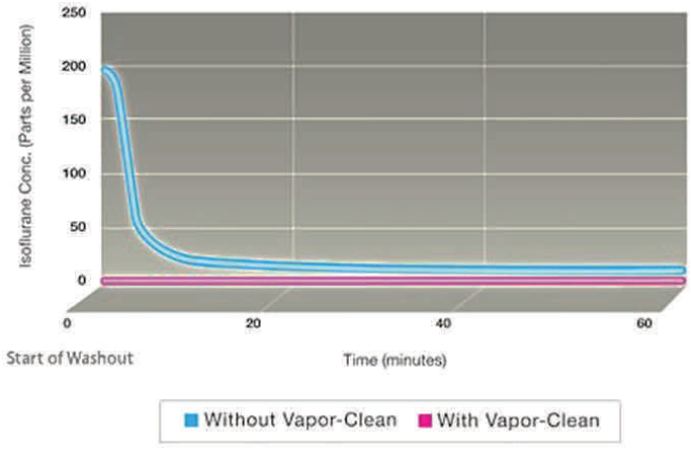
The internal components of modern anesthesia machines capture and hold volatile anaesthetics which are released when the machine is used for a new patient. Even trace amounts of vapor can be harmful for susceptible patients. Previously, flushing the anaesthesia machine with high fresh gas flow for an extended time before a case was thought to help decrease the risk to susceptible patients. Now, in less than 90 seconds, Vapor-Clean activated charcoal filters reduce exposure to less than 5ppm of desflurane, sevoflurane and isoflurane molecules from reaching the patient for an entire case lasting up to 12 hours.

Traditional Flushing Takes Longer Than You Think

The table is a summary of published studies that show the extended periods of flushing needed without the Vapor-Clean filters before modern anaesthesia delivery systems can be used for MH-susceptible patients.

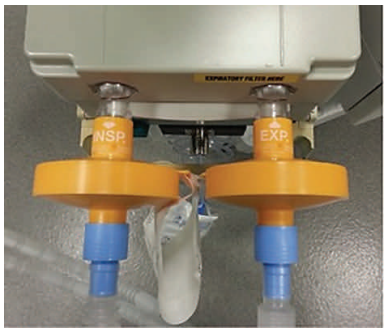
The data plot below shows concentration of anaesthetic vapor in an Ohmeda Aestiva anaesthesia machine after the machine was used to deliver isoflurane at 1 MAC for 2 hours. Without the Vapor-Clean, it took over 60 minutes of flushing the machine at 10 L/minute before the vapor emitted by the machine was safely below 5 parts per million. Under the same conditions, when using the Vapor-Clean filters, the machine was ready in less than 2 minutes.

Workstation Type	Anesthetic Agent	Published washout time (time to inspired agent less than 5 parts per million)	Time to inspired agent less than 5 parts per million with Vapor-Clean filters
Ohmeda Aestiva	Isoflurane	54 minutes[2]	Less than 1 minute[2]
Ohmeda Aestiva	Sevoflurane	48 minutes[2]	Less than 1 minute[2]
Ohmeda Aestiva	Desflurane	27 minutes[2]	Less than 1 minute[2]
Draeger Apollo	Isoflurane	84 minutes[3]	Less than 1.5 minutes[3]
Draeger Apollo	Sevoflurane	46 minutes[2]	Less than 1 minute[2]
Draeger Apollo	Desflurane	53 minutes[3]	Less than 1 minute[3]
Draeger Primus	Isoflurane	64 minutes[4]	
Ohmeda Aestiva	Sevoflurane	55 minutes[5]	Less than 1 minute[2]
Draeger Fabius	Sevoflurane	104 minutes[3]	
GE Avance	Sevoflurane	61 minutes[6]	
Maquet Flow-i	Sevoflurane	48 minutes[6]	
GE Aisys	Sevoflurane	55 minutes[7]	



Standardize Anesthesia Machine Preparation for MH

- Two-year minimum shelf life
- Reduces costly operating room delays
- Negligible additional breathing circuit resistance
- No need to remove CO2 absorbent
- Compatible with standard two-limb and coaxial breathing circuits



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