Anesthesia vaporizer
service recommendations
ANESTHESIA VAPORIZER SERVICE RECOMMENDATIONS

The anesthesia vaporizer is a critical component of your anesthetic machine. It is very important to ensure that the appropriate percentage of anesthetic agent is being delivered. A malfunctioning vaporizer can be the cause of inappropriate depth of anesthesia (ex: animals under too lightly or too deep) and may also be the reason you “lose” a patient.

Most vaporizers used today in veterinary practices are used with either Isoflurane or Sevoflurane. There are still some Halothane (fluothane) vaporizers on the market, however, the agent is hard to come buy as most manufacturers have discontinued its production.

FREQUENCY OF SERVICE

You should have your anesthesia machine maintained annually. Leaks on your machine can provoke dilution of anesthetic gasses and pollute your environment, not to mention increase your operating costs. “The fact that you have no problems keeping your animals under does not mean that your staff is not breathing the gasses all day long as well”. At the time of service the technician should have an anesthetic agent monitor and should provide you with the readings of the vaporizer. It is important to note that these readings are only an indication of the vaporizer output at the time of inspection, it is not a calibration. Calibration of vaporizers is impossible to perform “on-site” as it must be done in a controlled environment. Anyone who tells you otherwise is misleading you.

Most vaporizers on the market are considered “in spec.” if the output is within +- 15% of the dial setting. If the output is beyond that the technician will recommend exchanging your vaporizer with a freshly calibrated one or to send your vaporizer out for recalibration.
THE FIRST CANADIAN VAPORIZER SERVICE CENTER FOR HUMAN AND VETERINARY ANESTHESIA WAS SET-UP AND OPERATED BY ONE OF OUR STAFF.
**HALOTHANE**

If you are using Halothane, it should be fully recalibrated and overhauled annually, the agent contains a preservative (Thymol) which gradually creates deposits on all parts of the vaporizer, causing the dial to be harder to turn and intermittently effect output.

**ISOFLURANE & SEVOFLURANE**

Since these agents do not contain Thymol, they do not leave deposits in the vaporizer and need less frequent recalibrations. It is still necessary to have the output checked annually when verifying your anesthesia machine. An indication that your vaporizer is due for recalibration is if you find yourself routinely having to use concentrations higher or lower than you generally use. Naturally, it is assumed that you perform daily leak checks on your anesthesia machine.

**WHY CAN’T VAPORIZERS BE SERVICED ON-SITE?**

Vaporizer output is affected by the temperature of the agent. The colder the agent, the lower the vaporizer output; the hotter it gets the higher the output. Several factors affect the temperature. The oxygen flow through the vaporizer cools the agent down; the room temperature affects the vaporizer temperature. The vaporizer contains a thermostat which regulates the output to compensate for these temperature variations but it has its limits. In order to recalibrate the thermostat it must be done in a temperature controlled environment. Adjustments are made at precise temperatures and rechecked with a minimum pause of 4 hours between adjustments to confirm stability. Several subsequent identical readings are required before considering the calibration to be valid. This process may take up to 5 days. Once completed, the vaporizers are fully dried before shipping.
**REPLACEMENT PARTS**

During the recalibration process, many parts require replacement. The wick assemblies, the o-rings, etc., should always be replaced. Any other worn part should also be replaced.

**TRANSPORT PREPARATION**

Before sending your vaporizer for recalibration it must be drained of all agents. Leaving agent in the vaporizer can cause damage. Proper packaging is very important.

**FIRST USE**

When you fill your vaporizer for the first time it may seem that you are losing agent rapidly. This is normal. A cotton wick inside the vaporizer absorbs a great deal of liquid and requires 2 to 3 fillings before being fully saturated.
WHAT CAN YOU EXPECT FROM DISPOMED?

EXPERTISE
Dispomed has been manufacturing and servicing anesthesia equipment for over 30 years. Our vaporizer techs are factory trained. The first Canadian vaporizer service center for human and veterinary anesthesia was set-up and operated by one of our staff while employed by Ohio Medical products (now known as GE Healthcare).

SERVICE REPORTS
Complete reports are filed with all the information regarding any service provided by a Dispomed tech. These reports indicate concentrations, performance and recommendations.

TECHNICAL SUPPORT
Techs are available to answer all of your questions and concerns regarding the use and care of your anesthesia equipment, vaporizers and many other products.

FOLLOW-UP
Dispomed will contact you ahead of time to schedule your preventative maintenance. All previous reports will be checked to follow-up on recommendations which where previously noted.

FOR MORE INFORMATION REGARDING PRODUCTS AND SERVICES AVAILABLE AT DISPOMED, YOU MAY CONTACT US DIRECTLY AT 1-800-363-1746 OR BY E-MAIL AT info@dispomed.com
WE ARE EXPERTS!

TEC 3

TEC 4

TEC 5

PENLON

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