



Title	Anesthesia Vaporizer Maintenance
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I. BACKGROUND

According to the Guide for the Care and Use of Laboratory Animals (2011), “Devices such as precision vaporizers increase the safety and choices of inhalation anesthetics for use in rodents and other species”. However, if anesthesia machines are used, they should be properly maintained.

The anesthesia vaporizer is a critical component of the 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 and death.

Some vaporizers are owned and maintained by the animal facility, and some are owned and maintained by individual Principal Investigators (PIs).

II. POLICY

- A. All anesthesia machines must be maintained **annually**. Leaks can provoke dilution of anesthetic gasses and pollute your environment.
- B. Vivarium managers or PIs are responsible for maintaining an established schedule of testing on their vaporizer(s) depending on ownership.
- C. Anesthetic machines and vaporizers must have documentation affixed to each machine that is inspected or must provide documentation upon request.
- D. Documentation should include (at a minimum):
 1. Date of service and/or due date for next service (if different from 1 year)
 2. Initials of person completing the service
- E. Calibrations which fall outside of +/- 20% tolerance will be red-tagged and can no longer be used until a manufacturer or certified repair is completed and documented.
- F. Anesthetic machine owners who provide documentation from the manufacturer that an anesthetic machine and/or vaporizer does not require yearly maintenance will be exempt from this policy, however the PI must follow the manufacturer guidelines and document maintenance according to those guidelines.
- G. It is the owners responsibility to ensure that each anesthetic machine is maintained either according to this policy or the manufacturer recommendations.

H. All costs associated with anesthetic machine maintenance are the responsibility of the owner.

IACUC members will pay particular attention to anesthetic machine maintenance during semi-annual facility inspections and other IACUC visits. The responsible owner will be required to have any questionable anesthetic machine or vaporizer evaluated. Any necessary corrections will be re-assessed by the IACUC during follow up visits.