ENVIRONMENTAL HEALTH & SAFETY UNIVERSITY of WASHINGTON

PASSIVE SCAVENGING USING CHARCOAL CANISTERS

GENERAL RECOMMENDATIONS

Avoid using a passive scavenging method for animal surgeries for extended periods, such as over 3 hours; instead, use an active scavenging method to ensure adequate anesthetic gas control. If possible (such as with small rodents), work in a chemical fume hood when using passive scavenging method.

PASSIVE SCAVENGING STEPS

STEP	EXAMPLE
1. Weigh the charcoal canister and record weight on the label. Discard the charcoal canister when its weight is approaching the manufacturer's specified limits (e.g., 50 grams above the original weight for the canister).	Form Gas
 A. For canisters with an exhaust port on the top, place it in an upright position. B. For canisters with exhaust ports on the bottom, use a holder for charcoal canisters to avoid blocking the exhaust holes. 	
C. Do not lay the charcoal canisters on their side during use.	c the second sec
3. Prepare a nose cone system for induction.	
4. Place animal in the induction box.	
5. A. Turn on the oxygen flow rate to 1-4 liters/minute by adjusting the knob on the oxygen flow meter.	
B. Turn on the halogenated anesthetic to the appropriate concentration by adjusting the dial control on the vaporizer and wait until the animal is recumbent and adequately anesthetized. You can test the anesthetic depth by rolling the animal in the induction box.	А



6.	Turn off the vaporizer and let oxygen flow to the chamber for 5-10 seconds in order to flush the chamber and minimize exposure to waste anesthetic gas.	
7.	Open the induction box and move the animal to the nose cone. Do not turn on the vaporizer until the animal is positioned in the nosecone.	
8.	Switch the gas flow "on" to the nose cone.	
9.	 A. Adjust the knob on the oxygen flowmeter to a lower oxygen flow rate (e.g. 0.5-1 liter/minute), ensuring the animal is adequately anesthetized. B. Adjust the dial control on the vaporizer to the appropriate halogenated anesthetic concentration. 	
10	. Turn off the vaporizer and oxygen when the surgery is completed.	