

Recommended Methods of Euthanasia: *Guinea Pigs*

Species	Method	Description
Guinea Pigs	Asphyxiation using CO2 followed by bilateral thoracotomy.	Using a non-precharged chamber, CO2 is dispensed from a commercial cylinder with fixed pressure regulator and inline restrictor controlling gas flow within 30%-70% of the chamber volume per minute to comply with 2020 AVMA Guidelines. CO2 flow will be maintained for > 60 seconds following respiratory arrest (which may take up to 5 minutes), followed by bilateral thoracotomy to assure euthanasia.
	Asphyxiation using CO2 followed by decapitation.	Using a non-precharged chamber, CO2 is dispensed from a commercial cylinder with fixed pressure regulator and inline restrictor controlling gas flow within 30%-70% of the chamber volume per minute to comply with 2020 AVMA Guidelines. CO2 flow will be maintained for > 60 seconds following respiratory arrest (which may take up to 5 minutes), followed by decapitation using (<i>indicate equipment used</i>) to assure euthanasia.
	Asphyxiation using CO2 followed by exsanguination.	Using a non-precharged chamber, CO2 is dispensed from a commercial cylinder with fixed pressure regulator and inline restrictor controlling gas flow within 30%-70% of the chamber volume per minute to comply with 2020 AVMA Guidelines. CO2 flow will be maintained for > 60 seconds following respiratory arrest (which may take up to 5 minutes), followed by rapid exsanguination via (<i>indicate method or vascular incision points</i>) to assure euthanasia.
	Asphyxiation using CO2 followed by major organ harvest.	Using a non-precharged chamber, CO2 is dispensed from a commercial cylinder with fixed pressure regulator and inline restrictor controlling gas flow within 30%-70% of the chamber volume per minute to comply with 2020 AVMA Guidelines. CO2 flow will be maintained for > 60 seconds following respiratory arrest (which may take up to 5 minutes), followed by rapid harvest of (<i>indicate organs / tissues</i>) to assure euthanasia.
	Inhalant anesthetic overdose followed by bilateral thoracotomy.	Using a precision vaporizer with induction chamber and waste gas scavenger, (<i>indicate the gas anesthetic</i>) will be administered slowly up to [<i>indicate: > 4.5 % (for Isoflurane) or > 6.5 % (for Sevoflurane)</i>] in oxygen and continued until respiratory arrest occurs for > 60 seconds. The chamber is flushed with oxygen only, the animal is removed and bilateral thoracotomy is performed to assure euthanasia.
	Inhalant anesthetic overdose followed by decapitation.	Using a precision vaporizer with induction chamber and waste gas scavenger, (<i>indicate the gas anesthetic</i>) will be administered slowly up to [<i>indicate: > 4.5 % (for Isoflurane) or > 6.5 % (for Sevoflurane)</i>] in oxygen and continued until respiratory arrest occurs for > 60 seconds. The chamber is flushed with oxygen only, the animal is removed and decapitated with (<i>indicate equipment used</i>) to assure euthanasia.
	Inhalant anesthetic overdose followed by exsanguination.	Using a precision vaporizer with induction chamber and waste gas scavenger, (<i>indicate the gas anesthetic</i>) will be administered slowly up to [<i>indicate: > 4.5 % (for Isoflurane) or > 6.5 % (for Sevoflurane)</i>] in oxygen and continued until respiratory arrest occurs for > 60 seconds. The chamber is flushed with oxygen only, the animal is removed and rapid exsanguination is performed by (<i>indicate method or vascular incision points</i>) to assure euthanasia.
	Inhalant anesthetic overdose followed by major organ harvest.	Using a precision vaporizer with induction chamber and waste gas scavenger, (<i>indicate the gas anesthetic</i>) will be administered slowly up to [<i>indicate: > 4.5 % (for Isoflurane) or > 6.5 % (for Sevoflurane)</i>] in oxygen and continued until respiratory arrest occurs for > 60 seconds. The chamber is flushed with oxygen only, the animal is removed and rapid removal of (<i>indicate tissues / organs</i>) is performed to assure euthanasia.
	Inhalant anesthetic overdose (dessicator jar) followed by bilateral thoracotomy.	Using a dessicator jar in a chemical fume hood, the animal is placed on a perforated platform that prevents direct contact with the liquid anesthetic (<i>indicate the gas anesthetic</i>). The lid is replaced and the animal monitored until lack of respiration for > 60 seconds is observed. The animal is removed from the jar and bilateral thoracotomy is performed to assure euthanasia.

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	Inhalant anesthetic overdose (via dessicator jar) followed by decapitation.	Using a dessicator jar in a chemical fume hood, the animal is placed on a perforated platform that prevents direct contact with the liquid anesthetic (<i>indicate the gas anesthetic</i>). The lid is replaced and the animal monitored until lack of respiration for > 60 seconds is observed. The animal is removed from the jar and decapitated with (<i>state equipment used</i>) to assure euthanasia.
	Inhalant anesthetic overdose (via dessicator jar) followed by exsanguination.	Using a dessicator jar in a chemical fume hood, the animal is placed on a perforated platform that prevents direct contact with the liquid anesthetic (<i>indicate the gas anesthetic</i>). The lid is replaced and the animal monitored until lack of respiration for > 60 seconds is observed. The animal is removed from the jar and exsanguination performed by (<i>indicate method or vascular incision points</i>) to assure euthanasia.
	Inhalant anesthetic overdose (via dessicator jar) followed by major organ harvest.	Using a dessicator jar in a chemical fume hood, the animal is placed on a perforated platform that prevents direct contact with the liquid anesthetic (<i>indicate the gas anesthetic</i>). The lid is replaced and the animal monitored until lack of respiration for > 60 seconds is observed. The animal is removed from the jar and (<i>state tissues / organs</i>) are harvested to assure euthanasia.
	Vital perfusion under injectable anesthesia	(<i>Indicate drug, dose in mg/kg, route & gauge needle</i>) will be used to induce anesthesia. Surgical depth of anesthesia will be verified by lack of response to (<i>indicate stimulus</i>) stimulus. Vital perfusion will be performed using (<i>indicate name</i>) perfusate injected into the (<i>define point of vascular access or blood egress site</i>). Perfusion will be performed in a chemical fume hood if required by EHS. Perfusate waste will be disposed of by (<i>indicate method of disposal</i>).
	Injectable anesthetic overdose (Pentobarbital)	Administration of $\geq 100\text{mg/kg}$ of Pentobarbital (<i>state manufacturer</i>) intraperitoneal (IP) or intravascular (IV). Monitor animal until lack of heart beat is noted for ≥ 60 seconds prior to tissue harvest or carcass disposal.