

Guidance on USDA Pain Categories

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Reference: *USDA Animal Welfare Inspection Guide, Chapter 7.4.3*, March 27, 2019
https://www.aphis.usda.gov/animal_welfare/downloads/Animal-Care-Inspection-Guide.pdf
and *Guidelines for Preparing USDA Annual Reports and Assigning USDA Pain and Distress Categories* <https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/usda.pdf>

General Guidelines: The use of anesthetics does not always mean that the animal should be reported in category D.

Category B:

Definition: Animals being bred, conditioned, or held for future use in teaching, experiments, research, or surgery, but not yet used for such purposes.

Types of procedures: If an animal being housed, held, or bred was anesthetized for a non-invasive procedure, a blood draw, or other veterinary care procedure, the animal should be reported in category B.

Category C:

Definition: Animals that are used in procedures which do not involve pain and/or distress, and for which the use of anesthetics, analgesics or tranquilizers was not indicated.

Types of procedures: Examples of, but not limited to, routine procedures producing no or only momentary or slight pain and performed by trained individuals should be reported in category C.:

1. Animals used only for tissue collection after euthanasia.
2. Animals promptly euthanized when initial signs of morbidity are first observed.
3. Methods of euthanasia conducted in accordance with current AVMA Guidelines for Euthanasia.
4. Administration of:
 - a. Electrolytes and other fluids
 - b. Immunizations, including approved uses of Complete Freund's Adjuvant (CFA). See Animal Research Advisory Committee (ARAC) Guidelines for the Use of Adjuvants in Research.
 - c. Oral medications.
5. Most blood collection procedures.
6. Gastric gavage.
7. The administration of an anesthetic, analgesic or tranquilizing drug to an animal for restraint purposes to perform a procedure that involves no pain or distress. Examples include but are not limited to: TB testing monkeys, blood withdrawal, minimizing animal

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movement to facilitate anatomical measurements, or preventing animal movement during imaging procedures, , AVMA-acceptable adjunctive method of euthanasia such as, but not limited to, animals put under deep anesthesia to perform exsanguination and/or perfused with perfusate such as 4% paraformaldehyde.

8. Non-surgical catheterization.
9. Certain manipulative procedures such as injections, palpation, skin scrapings, and radiography.
10. Intracerebral inoculations in neonatal rodents prior to cranial ossification when performed by a trained individual.
11. Genotyping of mice of any age, even if anesthesia is used for those over 21 days of age.

If the results of the above procedures are observed to cause more than momentary or slight pain or distressful to the animals, the IACUC will be informed, the protocol modified or halted, and those animals listed in category E.

Category D:

Definition: Animals that are used in procedures which would involve more than slight or momentary accompanying pain or distress, and for which appropriate anesthetic, analgesic, or tranquilizing drugs, were used must be listed in Column D. If methods other than anesthetics, analgesics, or tranquilizing drugs are used to relieve pain or distress, animals can still be reported in category D if the methods are appropriate and effective.

Types of procedures: Examples of, but not limited to, include:

1. Surgery, including biopsy, gonadectomy, neurophysiological manipulations, or preparations such as the implantation of electrodes and recording devices.
2. Terminal (i.e. non-survival) surgical procedures in which the animal(s) are euthanized before recovering from anesthesia.
3. Periorbital collection of blood in species without a true orbital sinus, such as rats and guinea pigs.
4. Intra-cardiac blood collection.

Category E:

Definition: Animals subjected to procedures involving more than slight or momentary accompanying pain or distress in which appropriate anesthetics, analgesics, or tranquilizing drugs are withheld because their use would have adversely affected the teaching, testing, or experiment. Animals subjected to painful procedures and the anesthetics, analgesics, tranquilizing drugs, or other palliative treatment did not adequately preclude more than slight or momentary pain or distress.

Types of procedures: Examples of, but not limited to, include:

1. Drug or radiation toxicity testing producing unrelieved pain and/or distress.
2. LD50 determinations or any other studies involving death as an endpoint.
3. The exposure of an animal to an agent which produces unrelieved pain or distress.

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4. The exposure of an animal to electrical shocks that are generally accepted as causing pain in humans.