

USDA Pain Categories

USDA Category B	USDA Category C	USDA Category D	USDA Category E
Breeding or Holding Colony Protocols	No more than momentary or slight pain or distress and no use of pain-relieving drugs, or no pain or distress. For example: euthanatized for tissues; just observed under normal conditions; positive reward projects; routine procedures; injections; and blood sampling.	Pain or distress appropriately relieved with anesthetics, analgesics, and/or tranquilizer drugs or other methods for relieving pain or distress.	Pain or distress or potential pain or distress that is not relieved with anesthetics, analgesics and/or tranquilizer drugs or other methods for relieving pain or distress.

Category B

Animals being housed that have not been used are in category B. Wild animals being observed without capture are also in this category.

- ▶ Example: Breeding colonies whose individuals do not need genotyping using tissue or fluid samples collected from them would be in this category.

Category C Examples

Animals upon which teaching, research, experiments, or tests will be conducted involving no more than momentary or slight pain or distress, or no pain or distress. No use of pain-relieving drugs is necessary. Includes AVMA-approved humane euthanasia procedures if no other procedures are performed that put them in a higher pain/distress category.

▶ Examples:

- ▶ Routine physical examinations
- ▶ Positive reward projects
- ▶ Observation of animal behavior in a controlled environment
- ▶ Feeding studies which do not result in clinical health problems
- ▶ Holding, measuring, or weighing animals
- ▶ Animal identification procedures performed on protocol (examples would include tattooing, ear notching, ear punching, wing banding, and micro chipping)
- ▶ Tail sampling rodents if no anesthesia is required
- ▶ Injections, fluid collection, or catheter implantation in superficial vessels with no anesthesia
- ▶ Live trapping
- ▶ Oral administration
- ▶ Gavage
- ▶ Imaging—radiography or ultrasound not requiring chemical restraint
- ▶ Euthanasia procedures fully approved by AVMA Guidelines on Euthanasia (see example exceptions under Category D)
- ▶ Chemical sedation or anesthesia for restraint purposes only

Category D

- ▶ Animals upon which experiments, teaching, research, surgery, or tests will be conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs will be used.
- ▶ Examples:
 - ▶ Diagnostic procedures such as laparoscopy or needle biopsies
 - ▶ Exposure of blood vessels for catheter implantation
 - ▶ Ocular blood collection in mice
 - ▶ Survival surgical procedures
 - ▶ Postoperative pain or distress
 - ▶ Any postprocedural outcome resulting in evident pain, discomfort, or distress such as that associated with decreased appetite/activity level, adverse reactions to touch, open skin lesions, abscesses, lameness, conjunctivitis, corneal edema, and photophobia
 - ▶ Induced infections or antibody production with appropriate anesthesia and postop/postprocedure analgesia
 - ▶ Nonsurvival surgical procedures
 - ▶ Exsanguination under anesthesia
 - ▶ Cardiac blood collection
 - ▶ Terminal perfusion

Category D may be used in specific instances where onset of pain or distress leads to euthanasia of the animal and in cases where acclimation of the animal to the restraint, procedure, or technique sufficiently reduces the distress that would have been present without the acclimation.

Category E

- ▶ Animals upon which experiments, teaching, research, surgery, or tests will be conducted involving accompanying pain or distress to the animals, and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs will adversely affect the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests.
- ▶ Examples:
 - ▶ Toxicological or microbiological testing, cancer research, or infectious disease research that requires continuation until clinical symptoms are evident or death occurs
 - ▶ Experimental induction of disease (i.e., diabetes, epilepsy, Parkinson's, etc.) including metabolic, nutritious, or as the result of exposure to toxicants
 - ▶ Ocular or skin irritancy testing
 - ▶ Food or water deprivation beyond that necessary for ordinary presurgical preparation
 - ▶ Application of noxious stimuli such as electric shock if the animal cannot avoid/escape the stimuli and/or it is severe enough to cause injury or more than momentary pain or distress
 - ▶ Infliction of burns or trauma
 - ▶ Prolonged restraint in a conscious animal without acclimation (metabolic cage)
 - ▶ Any procedures for which needed analgesics, tranquilizers, sedatives, or anesthetics must be withheld for justifiable study purposes
 - ▶ Use of paralyzing or immobilizing drugs for restraint on a conscious animal
 - ▶ Exposure to abnormal or extreme environmental conditions without acclimation
 - ▶ Euthanasia by procedures deemed unacceptable by AVMA Guidelines on Euthanasia