

Policy:	SC-30-102
Date:	4/1/2022
Enabled by:	IACUC/AV/ ILAR/APHIS
Supersedes:	9/3/2019

Title: Environmental Enrichment for Animals

I. Purpose:

The purpose of this policy is to ensure that research and teaching animals are provided with environmental enrichment to enhance well-being with sensory and motor stimulation, through structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities and cognitive challenges according to species-specific characteristics (*Guide*, pgs. 52-54).

II. Policy:

All units providing animal care must meet or exceed these minimum requirements based on the USDA Animal Welfare Regulations (*AWR*), the ILAR Guide for the Care and Use of Laboratory Animals (*Guide*), and the Public Health Service Policy (*PHS*). All animals should be provided with an environment that enables them to perform species-typical behaviors. Refer to species-specific husbandry care AV minimum standards for appropriate options. Exceptions to environmental enrichment standards must be justified in an IACUC approved protocol or by the clinical veterinarian for health-related concerns (*Guide*, pg. 52-54).

Social animals must be socially housed unless veterinary or experimental justification is provided (*Guide*, pg. 64). Please refer to the IACUC social housing policy:

<https://research.ucdavis.edu/policiescompliance/animal-care-use/iacuc/social-housing-of-social-species/>.

III. Procedure:

Animals that must be housed singly for experimental, veterinary, or social incompatibility reasons should be individually housed for the minimum time period necessary. When possible, visual, auditory, olfactory, and tactile contact with conspecifics should be provided.

In the absence of other animals, additional enrichment may be offered, such as positive interaction with the animal care staff and additional enrichment items. If housed alone in a room, the addition of a companion animal in the room or housing area should be provided (*Guide p.64*).

Appropriate enrichments may include occupational enrichments (e.g. toys, chains, devices to increase locomotion), physical/structural enrichments (e.g. nesting material, shelves, nesting boxes, perches), sensory enrichment (e.g. video), or nutritional enrichment (e.g. foraging materials, food treats). The enrichments chosen must be appropriate for the particular species and study parameters.

Uneaten perishable treats must be removed from the cage daily to prevent spoilage.

If devices are used for environmental enrichment they must be easily sanitizable or disposable and discarded at cage change.

Devices used for environmental enrichment must be easily cleaned and disinfected or disposable (AWR 3.1). Devices must be checked regularly for wear and discarded when safety hazards are present or they no longer function as an enrichment device.

Species Specific requirements

Cats:

- Resting surfaces must be provided within the primary enclosure with the provision that all animals housed within that enclosure can rest comfortably at the same time (AWR 3.6).

Dogs:

There must be an established exercise plan for dogs if floor space is not at least twice the minimum floor space required by the AWA (AWR 3.8). The following must be accounted for:

- Individually housed dogs must be provided the opportunity to exercise regularly (AWR 3.8).
- Individually housed dogs should be provided sensory contact with other dogs. If dogs are housed individually without this contact, positive physical human contact must be provided daily (AWR 3.8).

Non-Human Primates:

For nonhuman primates, there must be a written psychological well being plan approved by the IACUC (AWR 3.81). This plan must be reviewed by the IACUC and signed by the AV at least every three years. The plan should take into account the following:

- Nonhuman primates should be provided the opportunity to demonstrate species typical behavior (*Guide* pg. 52). A plan to address the social needs of nonhuman primates is also required (AWR 3.81).
- Examples of enrichment for nonhuman primates include: social grouping, perches, swings, mirrors, and other increased cage complexities, providing objects to manipulate, varied food items, using foraging or task-oriented feeding

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methods, and providing interaction with the care giver or other familiar and knowledgeable person (*AWR* 3.81).

The clinical veterinarian may grant an exemption to any environmental enrichment plan for medical reasons. For dogs and nonhuman primates, unless the condition is permanent, the exemption must be reviewed and documented at least every 30 days by the clinical veterinarian (*AWR* 3.81).