



THE UNIVERSITY OF TOLEDO

SUBJECT: IACUC Housing Space Requirements for Laboratory Animals

DATE: March 19, 2025

IACUC Housing Space Requirements for Laboratory Animals

The Guide for the Care and Use of Laboratory Animals (the Guide) lists the minimum space recommendations for laboratory animals. Population density can affect reproduction, metabolism, immune responses, and behavior. Group composition should be held as stable as possible as mixing groups or introducing new members can alter behavioral and physiological functions. Larger animals may require more space to meet the performance standards.

The following information is based on the space recommendations in the Guide and performance standards set in the UToledo Department of Laboratory Animal Resources. Available space in each cage will be based on inside dimensions near the floor to account for the space actually occupied by the animals. Compliance with the following guidelines is required unless written exception has been approved by the Institutional Animal Care and Use Committee (IACUC) on the grounds of accomplishing scientific objectives. Principal Investigators should notify the DLAR staff prior to implementing. NOTE: For animals that are not listed below, contact a veterinarian.

MICE

Cage type	Floor area	Max # of animals in cage
Ventilated mouse cage	75 in ²	5 ^a
Static mouse cage	67 in ²	4

^a Ventilated cages may house up to 5 mice weighing greater than 25 grams. However, at this density 25-30% of the ventilated cages will need to be changed more frequently creating a variable compared to the other 70-75% that are changed every 14 days. **This can negatively influence research, thus, DLAR recommends a maximum of 4 mice/cage.**

Breeding cages should follow the IACUC policy "Rodent Breeding and Breeding Cage Densities"

VOLES

Standard ventilated or static rat cage (141 in ²)		
Weight (g)	Floor area required (in ²)/animal ^b	Max # of animals in cage ^c
Less than 60	10	5
Up to 80	13	4
More than 100	>19	3

^b This is based on space recommendations in the Guide for hamsters.

^c This is a performance based recommendation to prevent high moisture and ammonia levels due to the frequent, dilute urination of voles.

Breeding cages should follow the IACUC policy "Rodent Breeding and Breeding Cage Densities"

RATS

Standard ventilated or static rat cage (141 in ²)		
Weight (g)	Floor area required (in ²)/animal	Max # of animals in cage
Up to 200	23	5
Up to 300	29	4
Up to 400	40	3
Up to 500	60	2
More than 500	>70	1 or 2 ^c
Large static rat cage (268 in ²) 18.5"x14.5"x8"		
Weight (g)	Floor area required (in ²)/animal	Max # of animals in cage
Up to 200	23	9
Up to 300	29	9
Up to 400	40	6
Up to 500g	60	4
More than 500	>70	3

Breeding cages should follow the IACUC policy named, "Rodent Breeding and Breeding Cage Densities"

- Only 1 female with a litter can be housed in a standard rat cage.

^c 1 or 2 animals depending upon size of animals and performance standards such that overcrowding does not exist.

RABBITS

Standard rabbit cage (5 ft ²)		
Weight (kg)	Floor area required (ft ²)/animal	Max # of animals in cage
<2	1.5	3
Up to 4	3.0	1
Up to 5.4	4.0	1
More than 5.4	>5.0	1 ^d
Doe with litter	>5.0	1 ^d

^d 1 requires double cage (two cages with the divider removed = 10ft²)

References:

1. *The Guide for the Care and Use of Laboratory Animals*, 8th Edition. National Research Council Committee for the Update of the Guide for the Care and Use of Laboratory Animals. Washington (DC): National Academies Press (US).
2. Guideline for “Rodent Breeding and Breeding Cage Densities”, University of Toledo IACUC, March 2024.
<https://www.utoledo.edu/research/rsp/RC/animal/docs/Breeding%20and%20Breeding%20Cage%20Densities.pdf>