

Miscellaneous

Item 6 – Exception to the *Guide*: Housing Diuretic Rodents in Wire-bottom Caging

According to the [*Guide for the Care and Use of Laboratory Animals, Eighth Edition*](#) (pg. 52), "when given the choice, rodents prefer solid floors (with bedding) to grid or wire-mesh flooring." This has been interpreted to mean that rodents should be housed in solid-bottom caging as the standard of care with wire-bottom caging being reserved for situations where it is critical to research and approved by the Institutional Animal Care and Use Committee (IACUC).

Projects involving diabetic and diuresis-induced rodents have led to husbandry and animal welfare concerns for DLAR in relation to housing these animals in solid-bottom caging with contact bedding. Regardless of how much bedding, what type of bedding and/or how often the cages are changed, the animals are urinating such copious amounts that the cages are completely soaked by the next morning. This means that the animals are staying wet with urine most of the time and DLAR is observing mild skin irritation on occasion.

The Guide recommendations were based on preference testing between wire-bottom caging and solid-bottom caging with bedding. As the bedding is softer, it is not surprising that the rodents would choose this more comfortable substrate. Therefore, this preference is based upon the comfort of the rodents. DLAR is observing that the rodents will preferentially climb onto enrichment items to escape the wet bedding, which indicates that they prefer the dry, solid plastic to the wet bedding.

Therefore, DLAR is recommending that diuretic animals be housed in cages with wire flooring which allows drainage of urine away from the animals. Such housing will be subject to the following stipulations:

1. Wire-bottom caging will be appropriate for the species being housed.
2. Every cage will contain solid floor space inserts adequate to accommodate all occupants.
3. The date that the animal is placed in wire-bottom caging will be written on the cage card.
4. Any animal housed longer than 8 weeks on wire will have weekly examinations for foot lesions.
5. Any animal developing foot lesions will immediately be placed back into solid-bottom caging with contact bedding.

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