



STANDARD OPERATING PROCEDURE #521
MACAQUE HUSBANDRY

1. PURPOSE

This Standard Operating Procedure (SOP) describes the basic procedures for routine care and husbandry of macaques.

2. RESPONSIBILITY

Animal care staff, facility manager

3. MATERIALS

3.1. Personal protective equipment:

- 3.1.1. Shoe covers
- 3.1.2. Laboratory gown
- 3.1.3. Hair bonnet
- 3.1.4. Fit-tested N95 respirator
- 3.1.5. 2 pairs of examination grade gloves
- 3.1.6. Disposable face shield
- 3.1.7. Protective Kevlar® sleeves (optional)

3.2. Diet:

- 3.2.1. Appropriate animal diet
- 3.2.2. Fresh vegetables and fruits, nuts, seeds, dried fruits, etc.

3.3. Clean water bottles

3.4. Clean environmental enrichment devices

3.5. Hardwood shavings or chips

~~3.6.~~ Cage cards

3.7. Disinfectant

4.12. Bedding

- 4.12.1. Provide approved bedding in enclosures, e.g., hardwood shavings or chips.
- 4.12.2. Use a sufficient quantity of bedding to keep the animals clean and dry.
- 4.12.3. Store the bedding off the floor on pallets or shelves, and in such a manner to prevent contamination.

4.13. Cleaning and sanitation of cages and enclosures:

- 4.13.1. Cages and enclosures should be spot cleaned frequently and sanitized regularly to keep the environment dry and comfortable for the animals.
- 4.13.2. Frequency of sanitizing may vary depending on factors such as the number, age, and type of animals, the type of bedding, and the size of the enclosure.
- 4.13.3. Cages are commonly sanitized every two weeks and enclosures every four weeks.
- 4.13.4. Objects within cages and pens should be sanitized at least monthly.
- 4.13.5. Foraging treats can be added to the clean bedding.

4.14. Cleaning and sanitation of housing room and equipment:

- 4.14.1. Clean walls surrounding the cages as needed.
- 4.14.2. Daily:
 - 4.14.2.1. Wash the floors with disinfectant solution.
 - 4.14.2.2. Bring waste to compactor.
- 4.14.3. Weekly:
 - 4.14.3.1. Flush the floor drains.
- 4.14.4. Monthly:
 - 4.14.4.1. Wipe down all surfaces such as sinks, doors, door jams and doorknobs, windows, cart tops, shelves, etc. with the disinfectant solution.
 - 4.14.4.2. Sanitize garbage containers.

4.15. Transportation:

- 4.15.1. Transport animals as per SOP.

4.16. Waste Management:

- 4.16.1. Deposit non-regulated or non-infectious medical waste and soiled materials in dumpsters.
- 4.16.2. Regulated or infectious Medical Waste is processed by McGill University's Waste Management program.

5. SAFETY

- 5.1. Always wear appropriate PPE.
- 5.2. Observe Macaque-Related Injury SOP.
- 5.3. Preparation of disinfecting solution.
 - 5.3.1. Wear personal protective equipment as directed by the manufacturer when preparing and using disinfectant solution.
 - 5.3.2. Use metering tool to dilute disinfectant according to manufacturer's recommendation.
 - 5.3.3. Clean surfaces prior to disinfection to remove any organic material.
 - 5.3.4. Apply disinfectant and allow for adequate contact time.

6. REFERENCES

- 6.1. Canadian Council on Animal Care ([CCAC](#)) [guidelines: Nonhuman primates](#), April 2019.
- 6.2. National Research Council. 2003. Nutrient Requirements of Nonhuman Primates: Second Revised Edition. Washington, DC: The National Academies Press. <https://doi.org/10.17226/9826>.

SOP REVISION HISTORY

DATE	NEW VERSION
2023.07.28	2. RESPONSIBILITY Animal care staff, facility supervisor, facilities manager
2023.07.28	3.1.4. Fit-tested N95 Mask respirator 3.1.5. 2 pairs of examination grade gloves 3.1.6. Disposable face shield
2023.07.28	3.2.1. Appropriate animal diet (within six months of the milling date) 3.2.2. Fresh vegetables and fruits and other special treats (appropriate for human consumption), nuts, seeds, dried fruits, etc.
2023.07.28	3.4. Clean cage trays with bedding
2023.07.28	3.5. Bedding Hardwood shavings or chips
2023.07.28	3.6. Clean cages
2023.07.28	4.1. Observation of animals and environment: 4.1.1. Observe all animals daily for illness, injury, and general condition, including weekends and holidays food and water intake, and abnormal behavior. 4.1.2. Observe environmental conditions at room and caging level (temperature, humidity, light, noise, hazard, etc.). Report any abnormal environmental conditions. 4.1.3. Animals found dead are to be reported to veterinary care staff. Carcasses should be removed from the enclosure promptly, identified, and placed in the refrigerator. 4.1.4. Maintain a daily log of observations, environmental parameters, husbandry and maintenance procedures.
2023.07.28	4.2.2. Make provisions for emergency care by providing both work and after hours contact information for Principal Investigators (PI's) and their staff. Provide special requests or instructions if needed.
2023.07.28	4.3.1.4. Source
2023.07.28	4.3.2. Identify Individual animals as needed in accordance with SOP. Examples of individual identification may be identified using various methods include: such as tattoos and micro-chips.
2023.07.28	4.5.1. Feed animals to meet current National Research Council (USA) recommendations (NRC, 2003a) guidelines for primate nutrition.

2023.07.28

- 5.1. Always wear appropriate PPE.
- 5.2. Observe Macaque-Related Injury SOP.
- 5.3. Preparation of disinfecting solution.
 - 5.3.1. Wear personal protective equipment as directed by the manufacturer when preparing and using disinfectant solution.

2023.07.28