## **Policyon Supplemental Heating Devices**

Investigators who anesthetize animals for experimental manipulations (e.g. surgery, imaging, specimen collection) are encouraged to use a supplemental heat source in order to avoid hypothermia and to hasten recovery time.

Because electrical heating pads have uneven temperature gradients across their surface and/or may malfunction, they can cause thermal injury. **Due to this potential hazrd, the use of electrical heating pads is not permitted for anyUniversityof Rochester research animals, except in the folloing circumstances:** 

- 1. When placed under a cage containing 0.5cm deep bedding.
- 2.
  - the temperature.

The use of materials such as paper towels, surgical towels, or blue absorbent pads between an electrical heating pad and an animal is insufficient to protect animals from thermal injury.

Acceptable supplemental heating devices

Heating devices that deliver a controlled temperature are preferred. Examples include:

warm water blankets and circulators (e.g. Gaymar) forced air animal warmers (e.g. "Bair Huggers") far infrared warming pads rodent warmers (e.g. Stoelting) Deltaphase isothermal pad Slide warmer (set to <43C) ensure an even temperature across the

urface of the heat source.

- Vrap the heat source in a thick insulating layer (0.5cm thickness) of a
- rotective material such as bubble wrap, drapes, towels or blankets
- lace wrapped heat sources against furred skin
- leasure the surface temperature
- s
- microwavable warming pads (e.g. SnuggleSafe, K&H)
- thermal gel packs (e.g. Space Gel)
- hot water bottles
- hot rice bottles
- instant heating devices (e.g. "Safe and Warm")
- heat lamps positioned above an enclosure

the potential to cause thermal injury, even when exposed to a heat and degrees above body temperature over a longer period of time. Regardless used, remember to monitor animals closely to ensure that they do not sustain a thermal injury (skin reddening) or become hyperthermic (elevated core body temperature, increased respiratory rate).

Regardless of the device in use, if it appears to be in disrepair, or is not working as expected, it should be immediately discarded. Microwavable gel devices have a limited lifetime and over time may need more time in the microwave to heat the gel. The result may be uneven heating with localized hotspots that are much warmer than the other areas of the pad. If the pad is older, or you notice that it takes longer to heat it to the proper temperature it should be discarded.

All devices must be used following manufacturer's recommendations regarding duration of heating, lifespan/replacement and/or maintenance.

If you would like information about any heating methods, please contact DCM veterinary staff at X5-2651.

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