



Australian Government

National Health and  
Medical Research Council

N H M R C

# NHMRC GUIDELINES ON THE CARE OF DOGS USED FOR SCIENTIFIC PURPOSES

Public consultation draft  
Feb 2009

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National Health and Medical Research Council

Draft Guidelines on the Care of Dogs for Scientific Purposes

AN INVITATION TO MAKE SUBMISSIONS

The National Health and Medical Research Council is conducting public consultation on the above draft document which provides guidelines on the care of dogs used for scientific purposes. You are invited to make a submission about the draft guidelines. This invitation is made under section 13 (d)(iii) of the *National Health and Medical Research Council Act 1992*.

How to make your submission

Electronic submissions are strongly preferred. If this is not possible, please make your submission in writing (preferably typed or word processed) or on audio tape and submit it by mail. Electronic submissions should be emailed to the address below.

Please ensure that the author of the submission and organisation (if applicable) is clearly stated. If you would like your submission to be treated as confidential, please indicate this clearly (for example, by marking 'CONFIDENTIAL' each page of your written submission). Submissions may be subject to release under the Freedom of Information Act 1982. All submissions will have personal contact details removed prior to becoming publicly available on the NHMRC website.

Please e-mail your submission to email [ethics@nhmrc.gov.au](mailto:ethics@nhmrc.gov.au) or post to:

Project Officer – Animal Welfare  
Health and Research Ethics Section  
NHRMC  
GPO Box 1421  
CANBERRA ACT 2601

Closing Date:

The closing date for submissions is 5pm AEST on Friday 20 March 2009.

Further information

Hard copies of the draft guidelines and forms can be obtained by contacting the Health and Research Ethics Section on (02) 6217 9070 or by email [ethics@nhmrc.gov.au](mailto:ethics@nhmrc.gov.au)

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# NHMRC Guidelines on the care of dogs used for scientific purposes

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To be used in conjunction with the *Australian code of practice for the care and use of animals for scientific purposes*, 2004 (the Code). *Scientific purposes* are defined in the Code as: "All those purposes which aim to acquire, develop or demonstrate knowledge or techniques in any area of science, including activities for the purposes of teaching, field trials, environmental studies, research, diagnosis, product testing, and the production of biological products."

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This Guideline has been developed by the Animal Welfare Committee (AWC) and aims to improve the welfare of dogs used for scientific purposes and to identify issues for the institutional Animal Ethics Committee (AEC) assessing research and teaching projects that use dogs. It provides a general framework to help the AEC develop appropriate standards of care and housing of dogs in institutions. Each AEC has to develop its own written guidelines for the care of dogs (see the Code, section 2.1.1), which will take into account the particular conditions that prevail at that institution.

## Introduction

The contribution to human and animal health and welfare from research on dogs is significant and valuable. For example, dogs have been particularly important in improving our understanding of the functioning of heart and blood vessels and in developing improved treatment for cardiovascular disease in people. Research on dogs has distinctly benefited the health and welfare of dogs themselves and enhanced their value as companions and providers of important services to people.

Companion animals such as dogs have a special intrinsic value for a large proportion of the general public. Consequently, their use in biomedical and scientific research and teaching is generally a highly emotive and controversial issue and is opposed in some quarters. Research institutions and investigators must therefore demonstrate high and species-specific standards for the care of dogs in order to meet community attitudes and expectations.

The Guideline set out here seeks to ensure that dogs confined in animal holding facilities are provided with housing and an environment which meet or surpass the requirements of the Code. In particular, this Guideline aims to ensure that dogs kept in the research environment are provided with a good quality of life. Dogs need interesting and varied surroundings, regular exercise, frequent contact with people and the opportunity to express their natural social needs and instincts by contact with other dogs. This is especially important for animals held for long periods.

## Responsibilities of the investigators

(refer to 2004 Code section 3)

Primary responsibility for the health and well-being of dogs used for experimental purposes lies with investigators.

Investigators should ensure that they and their staff are competent to handle the animals and to provide a high standard of care and that their staff have an informed acceptance of the proposed treatment and euthanasia of dogs according to ethical practice. The investigator should also consult specialists (e.g. veterinarians, dog behaviour experts or those skilled in handling dogs in particular experimental circumstances) whenever necessary.

It is also the investigator's responsibility to ensure that the project has been approved by the institutional AEC and that it complies with the Code and relevant legislation before commencing the project.

## Responsibilities of institutions

*(refer to 2004 Code section 2.1.1).*

Institutions in which dogs are used should develop written guidelines for the acquisition and care of dogs. These guidelines should be developed in conjunction with research, teaching and animal care staff, and be approved by the institutional AEC. Specific requirements regarding, for example, cage and pen sizes and transport, should be indicated in these guidelines and should be consistent with the requirements of State and local governments.

The chain of responsibility for animals should be clearly defined in written guidelines. The ultimate responsibility for dogs in research and teaching programs lies with the investigators and lecturers leading the programmes. However, institutions are obliged to foster the conditions and culture that allows the proper execution of this responsibility. For example, the employment of well-trained, caring and committed staff is critically important for the welfare of dogs.

Teaching institutions such as veterinary schools should have processes in place to ensure that students make informed decisions about their use of dogs in learning and are introduced to processes of ethical decision-making. Some students may, for reasons of conscience, prefer to learn only by methods that do not involve purpose-bred or pound-sourced dogs. An example is the shadowing of practising veterinarians, which may be more time consuming, expensive and uncertain. It is incumbent on each institution to develop a policy for conscientious objectors, which acknowledges that their concerns arise from deeply held convictions and which prescribes how an appropriate mix of other teaching and learning methods can be offered to these students. If alternatives are offered, the learning outcome will be different and the qualification should identify this.

## Selection and acquisition of dogs

*(refer to 2004 Code section 4)*

### Temperament and suitability of breed and type

Selection of suitable dogs as experimental or teaching animals is critical to the success of the program and requires specific competencies.

It is not possible to be explicit about the types and breeds of dog that are best suited to medical experimentation. Size, shape and genetic fitness are important and some important generalisations can be made about temperament and behaviour. For instance, dogs requiring considerable exercise would not be suitable for confinement in a laboratory environment. Dogs that are bred for a high level of activity may become restless and bored in the confines of a laboratory. Highly excitable breeds such as red setters, dalmations and German short-haired pointers, may be unsuitable for long-term experimental conditions. Dogs with an aggressive nature are also unsuitable. Dog bites and other injuries are an occupational health and safety hazard, which can be severe. If risks from aggressive behaviour are not controlled significant injury may result to individuals and competent staff may be deterred from working with dogs.

## Health

Many impounded dogs will be unsuitable for scientific purposes because of poor health, behaviour problems and an unknown disease history. Accordingly, all dogs must be clinically examined by a veterinarian experienced in small animal medicine and given any appropriate medical treatment before entering the institutional supply unit. The clinical examination should include an assessment of behavioural suitability. In addition, assessment of specific behaviours may be relevant to some types of research.

## Ethical issues

Most dogs used for research and teaching in Australia are purpose bred. Very few pound-sourced dogs are currently used and their use remains a sensitive social concern. Investigators should be aware that some groups in the community are strongly opposed to the use of dogs for scientific purposes. At the same time, irresponsible pet ownership and the massive and tragic problem of pet overpopulation means that many thousands of unwanted dogs are euthanased annually in Australian pounds and shelters. However, this alone does not necessarily justify the use of these animals for any research or teaching purpose.

Unwanted pound-sourced dogs have played a vital role in medical research in Australia. For most aspects of medical research at the present time, animal models are necessary and the dog is an appropriate model in some instances.

Dogs themselves are the object of veterinary research. For example, pre- and post-mortem surveys on dogs delivered to pounds can help to advance canine medicine. In addition, the cadavers of dogs euthanased at pounds or shelters can have value for the development of the veterinary competencies directly applicable to dogs.

If dogs are provided from shelters it may be possible for an academic institution to work with shelters to develop an ethical donation scheme, so that those people surrendering their dogs can know that their animal will benefit society if it is unable to be re-homed. However, a perception by the public that pounds are supplying animals for research may deter some people from delivering stray animals to them and could result in a shelter losing financial support from the community. In particular, there is concern that family pets may be included inadvertently along with unwanted stray dogs as experimental animals in medical research due to the short length of time allowed for reclaim from the pound.

Should pound-sourced dogs become unavailable, a need to breed additional dogs for research may be created. In this case, the numbers of animals used will be greater as there will be a need to maintain breeding animals as well as those used for research purposes. To breed dogs specifically for research when unclaimed animals are being destroyed is unethical and inefficient. Furthermore, if research on unwanted pound-sourced dogs is conducted with the animal under full surgical anaesthesia and in non-recovery experiments, the result from the animal's standpoint is little different from being put down by anaesthetic overdose at the pound. Those using pound-sourced dogs must ensure that dogs are transported competently and with minimal welfare impact to the research or teaching institution and that dogs are cared for at the highest possible standards before their use in teaching or research. Pound-sourced animals are often not used to captivity and confinement and may mount adaptive responses that could invalidate research findings.

## Legal issues relating to pound-sourced dogs

Legislation relating to the ownership and statutory holding periods for pound dogs varies among Australia's States and Territories. It is essential that institutions know and observe local government and State laws relating to the holding and use of pound-sourced dogs in biomedical research.

Legislation covers the following matters:

1. The capacity of pounds/shelters to supply dogs for research. Legislation in some States bans this supply.
2. Codes of Practice/Guidelines covering requirements for supply if this is allowed. There can be a requirement for pound-sourced animals used in research to be held for a further seven days, over and above the period required in the pound itself, before the animals can be used for research. This provides greater opportunity for retrieval than for normal pound animals, which are destroyed after the statutory holding period if they are unclaimed. Institutions must maintain full records of every dog obtained from a pound and these records must include the identification number given to the animal by the pound.
3. Ownership status i.e. the transference of ownership of the animal to the pound if the dog is unclaimed after the statutory holding period. In most States and Territories, dogs must be held for a statutory period and if unclaimed at the end of this time, ownership of the dog transfers to the pound. The pound then determines the fate of the dog as the owner.

## NHMRC recommendations regarding the use of pound-sourced dogs

In view of these legal and ethical considerations, the NHMRC recommends, for scientific purposes (both research and teaching) where there is no suitable alternative on scientific grounds to the use of the dog that:

1. Where legislation permits, pound-sourced dogs with evidence of ownership may only be used in biomedical research and teaching where written permission is obtained from the owner.
2. Where legislation permits, pound-sourced dogs that are stray or otherwise without evidence of ownership, and which have fulfilled the legislative holding requirements, may be made available for non-recovery experiments conducted under full surgical anaesthesia. It is recommended that pound-sourced dogs only be used if ownership transfers to the pound after the statutory holding period.
3. Cadavers of dogs euthanased at pounds can and should be made available for research and teaching. In this instance, pounds have become the owners of dogs and the extra statutory holding period that operates in some cases does not apply.

### Guidelines for the acquisition of pound-sourced dogs

1. Be aware of the legislative requirements that apply to pound-sourced dogs within the jurisdiction that applies.
2. Dogs must have been thoroughly checked for identification, including scanning for microchips, at entry to the pound. If dogs can be identified, owners must be notified at once.
3. Dogs must have completed their statutory holding time, been thoroughly checked for identification and be clearly owned by the pound.
4. Dogs that are unclaimed and unsuitable for re-housing at the end of the statutory holding

time should be assessed by a veterinarian or person experienced in the selection of dogs for experimental purposes. The assessment should include:

- a. Health, general condition and disease status.
  - b. Behaviour – captivity can impose stress and extended times in captivity can lead to distress.
  - c. Suitability for research purpose. There is little point in transferring unsuitable animals to the institution and exposing them to the risks of transportation.
5. Dogs are to be transported according to accepted standards for the humane transportation of research animals.
  6. Unless conducted beforehand, each dog should receive a comprehensive clinical examination by a veterinarian experienced in small animal medicine on entry to the institution and receive any appropriate treatment.
  7. Dogs must be held within an institution for seven more days before use and in an area where they can be returned to the owner if reclaimed. Extended periods of holding can cause significant behavioural problems in dogs unused to confinement. Isolation should be avoided if possible and holding conditions that apply in other areas should be duplicated in quarantine.
  8. The institution must maintain comprehensive records of every dog obtained from the pound, including full description and the results of clinical examination and subsequent history. Records must contain the identification number given to the dog by the pound. After issue by the institution, the continuing maintenance of adequate records becomes the responsibility of investigators or teachers after they receive dogs into their care.
  9. Dogs used in non-recovery experiments must be under full surgical anaesthesia.
  10. Appropriate AEC approval for all research must be obtained.

## Care of dogs used for scientific purposes

(refer to 2004 Code sections 4.4.14, 4.4.15, 4.4.16, 4.4.17 and 4.4.18)

### Breeding

Genetic disease and inbreeding depression are hazards for the breeding of all animals and require monitoring in dog breeding colonies.

### Feeding

(refer to 2004 Code sections 4.4.24, 4.4.25, 4.4.26 and 4.4.27)

Dogs should be given a palatable diet adequate in amount and composition for a given life stage (pregnancy, lactation, growth etc.) and in line with accepted nutritional standards. If standard diets are not suitable for a particular research program, special dietary arrangements should be made, and approved by the institutional AEC.

Dogs should be weighed on admission to the institution and weighed weekly thereafter. Increases and decreases in weight are important indicators of a dog's response to new environments and research protocols.

### Housing

(refer to 2004 Code section 4.4)

Dogs should be housed a clean, dry environment, within contact or sight of other dogs. Lighting, temperature and humidity should all be appropriate for the comfort of dogs. Disturbing noise that may be within a dog's auditory range should be reduced. If water is used to hose down enclosed areas, residual water should be removed and humidity controlled.

Areas for holding dogs should not be next to areas holding other species which might be alarmed by the sight or sound of dogs.

Indoor housing should provide:

- clean water
- a comfortable place to lie down
- appropriate dry bedding
  - trampoline beds are recommended
  - impervious wooden bunks or benches are also acceptable as long as they are easy to keep clean and dry and do not result in any detectable rubbing on the animals' coats
- enough room to defecate away from the sleeping area, with faeces removed at least daily
- opportunity to see and smell other dogs, with the exception that females in oestrus should be housed away from males
- an appropriate environment which protects the animal from excessive and unpleasant noise that may be outside the human audible range
- toys which can be safely chewed or which contain food treats.

Cages should be cleaned at least once a day. Special attention and facilities should be provided for sick dogs, breeding animals and dogs less than 16 weeks of age. Whelping boxes lined with shredded paper should be available where required.

Outside housing should:

- at least meet local government or State regulations for dog pounds or shelters
- have a dry sleeping area
- have shade and shelter from wind and rain and account for prevailing weather conditions
- be well drained
- have faeces removed at least daily.

## Social environment

Dogs are gregarious, social animals and contact with people is crucial for their general wellbeing. This is especially important for animals used in research. Dogs used for medical research are generally better adapted to their holding conditions if they receive frequent and regular contact with people.

Dogs must have daily contact with at least one attendant for a reasonable period of time (for instance 20-30 minutes), even when they are group housed. Feeding, cleaning and routine husbandry should not count as part of this contact. Some dogs will demand more attention than others so the length of time spent with each animal will depend on its need for contact with humans.

Dogs held at the institution for more than seven days should also have regular contact with a member of the research team, unless this is contraindicated by the research protocol. If this person becomes a familiar, friendly source of contact, the dog will be more confident in a particular experimental situation. The need for contact is especially important for young dogs and for dogs entering the colony for the first time, irrespective of age.

## Change of environment and time out of cages

Dogs held in cages need variation in their environment and an opportunity to explore new surroundings using all of their senses. If dogs remain confined in a restricted and boring environment, they are likely to develop abnormal behaviour (such as continual jumping in the cage, self-mutilation and repetitive behaviour).

Particular attention must be given to providing daily outdoor exercise. Animals should spend several hours in an outside run in contact with or sight of other dogs. Where an outside run is not available, attendants need to provide an opportunity for dogs to leave their normal cage for at least 30 minutes each day. During this period they should be taken outside to run freely or should be taken for a walk on a leash, even in bad weather. Dogs enjoy being outside and experiencing a change of environment. The time dogs spend outside of their cages while these are cleaned is not sufficient.

### Veterinary care

*(refer to 2004 Code sections 4.5.8, 4.5.9, 4.5.10 and 4.6.1)*

All dogs under experimentation should be examined by a veterinarian at a frequency determined by the AEC. This veterinarian must inspect the health records maintained by the facility for each dog and report regularly to the institutional AEC. Additional care should be directed to those animals that require it because of their experimental situation.

The health program for dogs not undergoing acute surgery, experimentation or use in a teaching practical and kept for longer than seven to ten days should include any required vaccinations, appropriate management of internal and external parasites and regular bathing and grooming where appropriate for the breed and type of dog.

### Mortalities

*(refer to 2004 Code section 4.5.4)*

All deaths in dogs other than planned euthanasia at the end of the protocol must be the subject of a competent post mortem examination to accepted veterinary forensic standards and with support from additional laboratory tests where required. The AEC must be notified of the death and preferably prior to the post mortem examination. Every effort should be made to have the investigator present at the post mortem.

If the death of an animal is unexpected and has resulted from experimental methods or mismanagement, the investigator and animal care staff must take immediate action to prevent further deaths from the same cause.

A report of the likely immediate and predisposing causes of death and any remedial action taken by the investigator should be forwarded to the AEC promptly.

### Euthanasia and Disposal

*(refer to 2004 Code sections 3.3.18-3.3.23 and 4.8.1)*

When euthanasia is required it should be induced quickly and painlessly; for example, with an intravenous overdose of barbiturate. Dog carcasses should be disposed on site in a sanitary and environmentally acceptable manner. Where this is not possible, a competent waste management operator should dispose of carcasses in a similarly appropriate manner.

Inappropriate respect for dogs, the management of their death and the manner of their disposal can lead to considerable distress in those involved in an institution and should be avoided strenuously. Dog handlers, veterinary students and researchers should be prepared for the

emotional difficulties that may result from their use of the dogs. Access to trained counsellors or mentors should be made available (but optional) before, during and after the euthanasia event.

Appropriate policies and protocols must be developed for the adoption of dogs where this is regarded as a disposal option by institutions using dogs for research. Key issues for the adoption of dogs are the nature and temperament of dogs and the circumstances and competency of those seeking adoption. Dog bites and other injuries are a public health hazard and the risk is heightened when strong and potentially aggressive dogs are combined with inexperienced handlers. All dogs adopted should be microchipped, desexed, registered with the local municipality if required and vaccinated, dewormed, etc, before leaving the institution – this ensures change of ownership to the new owner.

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