the veterinarian’s role in

Animal Welfare

April 2017

AMERICAN VETERINARY MEDICAL ASSOCIATION
AVMA ANIMAL WELFARE COMMITTEE

The AVMA helps veterinarians keep abreast of the scientific, ethical, and public policy aspects of animal welfare decision-making. Its Animal Welfare Committee is charged with identifying, prioritizing, and studying animal welfare issues of importance to the Association and the profession of veterinary medicine.

The AVMA Animal Welfare Committee was established in July 1981. In April 2006, based on a recommendation from the AVMA’s Animal Welfare Governance Task Force, the AVMA Executive Board approved a revised charge, composition, and structure for the Committee to enable it to better assist the AVMA’s leadership and membership in responding effectively and proactively to emerging issues. The actions and activities of the Animal Welfare Committee are guided by the AVMA Animal Welfare Principles, which appear on page 1 of this policy brochure.

The Committee has 18 members, who represent the American Animal Hospital Association, American Association of Avian Pathologists, American Association of Equine Practitioners, American Association of Corporate and Public Practice Veterinarians, American Association of Feline Practitioners, American Association of Bovine Practitioners, American Association of Swine Veterinarians, American Association of Small Ruminant Practitioners, American Society of Laboratory Animal Practitioners, American Society of Veterinary Medical Association Executives, Association of American Veterinary Medical Colleges, Association of Shelter Veterinarians, Association of Avian Veterinarians, Association of Zoo Veterinarians and Association of Wildlife Veterinarians, aquatic animal medicine, humane or animal welfare organizations, state veterinary medical associations, and Student AVMA.

The following policies are current as of April 2017. AVMA policies are reviewed and updated on a regular basis. Please visit the AVMA’s Animal Welfare webpage at https://www.avma.org/kb/resources/reference/animalwelfare/pages/animal-welfare-policy-statements.aspx for the most current version of policies.
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AVMA ANIMAL WELFARE PRINCIPLES
(Approved November 2006; Reaffirmed November 2012)

The AVMA, as a medical authority for the health and welfare of animals, offers the following eight integrated principles for developing and evaluating animal welfare policies, resolutions, and actions.

- The responsible use of animals for human purposes, such as companionship, food, fiber, recreation, work, education, exhibition, and research conducted for the benefit of both humans and animals, is consistent with the Veterinarian’s Oath.

- Decisions regarding animal care, use, and welfare shall be made by balancing scientific knowledge and professional judgment with consideration of ethical and societal values.

- Animals must be provided water, food, proper handling, health care, and an environment appropriate to their care and use, with thoughtful consideration for their species-typical biology and behavior.

- Animals should be cared for in ways that minimize fear, pain, stress, and suffering.

- Procedures related to animal housing, management, care, and use should be continuously evaluated, and when indicated, refined or replaced.

- Conservation and management of animal populations should be humane, socially responsible, and scientifically prudent.

- Animals shall be treated with respect and dignity throughout their lives and, when necessary, provided a humane death.

- The veterinary profession shall continually strive to improve animal health and welfare through scientific research, education, collaboration, advocacy, and the development of legislation and regulations.
The American Veterinary Medical Association (AVMA) and the Federation of Veterinarians of Europe (FVE) recognize that sentient animals are capable of pain and suffering, deserving consideration and respect.

The AVMA and FVE recognize that veterinarians—as knowledgeable and accountable professionals—have an opportunity and an obligation to help animal owners, caretakers, handlers, and policy makers protect and improve animals’ welfare.

Consistent with the internationally accepted five freedoms,¹ animals must be provided water, food, proper handling, health care, and environments appropriate to their species and use, and should be cared for in ways that prevent and minimize fear, pain, distress, and suffering.

Establishing and implementing good animal care is a balancing act involving animal needs, human needs, societal expectations, and environmental concerns. Actions taken to improve animal welfare should be informed by veterinary, ethological, ecological, and ethical considerations.

In serving animals and society, veterinarians have unique attributes that make them valuable partners and effective advocates. Among these are:

- Strong science-based knowledge about animal health and husbandry, and proficiency in the technical and practical application of that information;
- Empathy, which encourages veterinarians to ensure uses of animals are necessary and appropriate;
- Direct practitioner access to animals, the environments in which they are housed, and the people who own and care for them;
- Regular interactions with other individuals indirectly responsible for the welfare of animals (e.g., other scientists, policy makers, advocates in the industry and humane communities, the public); and
- Long-standing credibility earned through public service and adherence to high ethical and professional standards.
All veterinarians have an opportunity to provide education and knowledge that can promote welfare-friendly animal care practices. Veterinarians must not only work to implement existing standards, but must also contribute to ensuring continual improvement of those standards.

Veterinarians in different types of practices may have unique roles:

- Private clinical practitioners provide direct-to-owner/caretaker assistance in assessing regularly the welfare of animals and in ensuring good animal welfare.
- Consulting veterinarians may complete in-depth evaluations of facilities and recommend standard operating procedures and best practices.
- Veterinary educators school future generations of veterinarians and paraprofessionals in the scientific and ethical bases behind the development and adoption of appropriate animal care practices.
- Veterinary researchers promote good animal welfare within existing animal care systems and propose alternatives that may better accommodate animal needs. Veterinarians employed in governmental and nongovernmental organizations develop, certify, and enforce animal care standards.
- Veterinarians with species-specific animal welfare expertise can serve as highly qualified, independent evaluators for assurance schemes.

Veterinarians are, and must continually strive to be, the leading advocates for the good welfare of animals in a continually evolving society.

Establishing Public Policy to Ensure Animal Well Being
(Approved January 2010; Revised November 2014)

Process
The American Veterinary Medical Association (AVMA) supports the use of appropriately constituted expert bodies to establish public policy on animal welfare. Such standard-setting bodies should strive for continual improvement of animal care systems through comprehensive evaluations that are based on sound science, with appropriate consideration for the practical implementation of their recommendations and societal preferences regarding animal use. We further believe that such standard-setting bodies, and related public policy, should be established through regular legislative and regulatory processes, which, by design, include opportunities for appropriate stakeholder engagement.

Although the AVMA recognizes the value of ballot initiatives, which provide an important opportunity for direct public engagement and help ensure the legitimacy of the democratic process, it does have concerns about using ballot initiatives to establish public policy on issues that do not lend themselves to "yes" or "no" answers. Ballot initiatives are poorly designed for addressing complex issues (e.g., setting animal care standards) in that they are narrow in their mechanism of effect, limit the amount and detail of information that can be provided to the public, and offer minimal opportunities for expert input. To achieve their desired objectives, regulatory actions related to animal care and welfare need to arise from a consensus built via a greater public understanding of animal needs and industry practices, and a greater industry understanding of public attitudes and ethical needs. The "yes" or "no" responses required by ballot initiatives may be destructive of this type of mutual understanding and the related campaigns tend to entrench opposing camps and focus attention on differences in opinion, rather than shared goals.

Whereas ballot initiatives can precipitate a polarizing public debate based on incomplete information, legislative and regulatory processes typically engage multiple experts and viewpoints and facilitate discussion. The latter contributes to responsible recommendations that can be practically implemented, and the end result benefits animals, those in the animal use industries and consumers.
Composition of Standard-Setting Bodies

Representation on standard-setting bodies established via regular legislative and regulatory processes should be well-balanced, both in technical expertise and viewpoint. Balance is essential to ensure good outcomes for animal care and to achieve public acceptability and support.

Technical expertise on standard-setting bodies allows animal care decisions to be made that appropriately address the variety of factors impacting animal well being, including access to quality food and water in appropriate amounts; protection of animals from disease, injury, predators, and adverse environmental conditions; provision of sufficient space and opportunity to allow animals to perform necessary species-typical behaviors; proper handling and transportation; and, when needed, timely euthanasia. As animal care experts, veterinarians and animal welfare scientists bring to the table not only their technical understanding of animals' physical and mental needs, but also an appropriate focus on balancing those needs with animal use practicalities and public expectations.

Veterinarians and animal welfare scientists, who have been professionally trained to responsibly advance animal care, should thereby be given substantial opportunity for representation.

Varying constituencies and viewpoints also deserve representation on standard-setting bodies, because they facilitate and can help ensure complete discourse. A diverse set of individuals can raise questions and concerns that help ensure all pertinent issues are addressed. Membership should include practical expertise from the animal use industries, as well as individuals representing animal protection groups and the general public. The number of individuals from each community should be balanced so as to ensure appropriate representation of their respective interests.
Ownership Vs Guardianship
(Approved May 2003; Revised April 2005)

Terminology Describing the Relationship Between Animals and Their Owners.

The American Veterinary Medical Association promotes the optimal health and welfare of animals. Further, the AVMA recognizes the role of responsible owners in providing for their animals’ care. Any change in terminology describing the relationship between animals and owners, including “guardian,” does not strengthen this relationship and may, in fact, harm it. Such changes in terminology may adversely affect the ability of society to obtain and deliver animal services and, ultimately, result in animal suffering.

Animal Abuse and Animal Neglect
(Approved November 1995; Revised April 2000, November 2009, January 2012)

The AVMA recognizes that veterinarians may observe cases of animal abuse or neglect as defined by federal or state laws, or local ordinances. The AVMA considers it the responsibility of the veterinarian to report such cases to appropriate authorities, whether or not reporting is mandated by law. Prompt disclosure of abuse is necessary to protect the health and welfare of animals and people. Veterinarians should be aware that accurate, timely record keeping and documentation of these cases are essential. The AVMA considers it the responsibility of the veterinarian to educate clients regarding humane care and treatment of animals.

Livestock Handling Tools
(Approved January 2013)

The AVMA believes that mechanical aids to direct livestock movement should be used properly. Use of aids should be secondary to good facility design and an understanding of the specific needs of the species involved. Every effort should be made to ensure adequate and ongoing training in animal handling and behavior by all parties involved and be regularly monitored. Electrical devices (e.g., stock prods) should be used judiciously and only in extreme circumstances when all other techniques have failed. Electrical devices should never be applied to sensitive parts of the animal such as the face, genitalia, or mucous membranes.
Disabled livestock should be managed in accordance with the AVMA policy on Disabled Livestock.

**Pain in Animals**  
(Approved April 2001; Revised November 2011, November 2015)

Animal pain is a clinically important condition that adversely affects an animal's quality of life. Drugs, techniques, or husbandry methods should be used to prevent, minimize, and relieve pain in animals experiencing or expected to experience pain. Protocols must be tailored to individual animals and should be based, in part, on the species, sex, breed, age, procedure performed, degree of tissue trauma, individual behavioral characteristics, assessment of the degree of pain, and health status of the animal.

**Physical Restraint of Animals**  
(Approved November 2001; Revised June 2007; August 2012)

Humane and safe physical restraint is the use of manual or mechanical means to limit some or all of an animal’s normal voluntary movement for the purposes of examination, collection of samples, drug administration, therapy, or manipulation. The method used should provide the least restraint required to allow the specific procedure(s) to be performed properly, should minimize fear, pain, stress and suffering for the animal, and should protect both the animal and personnel from harm. Every effort should be made to ensure adequate and ongoing training in animal handling and behavior by all parties involved, so that distress and physical restraint are minimized. In some situations, chemical restraint may be the preferred method. Whenever possible, restraint should be planned, formulated, and communicated prior to its application.
Removal or Reduction of Teeth in Non-Human Primates and Carnivores  
(Approved November 2012, Reaffirmed April 2017)  
The AVMA is opposed to removal or reduction of healthy teeth in nonhuman primates and carnivores, except when required for medical treatment or approved scientific research. Animals may still cause severe injury with any remaining teeth and this approach does not address the cause of the behavior. Removal or reduction of teeth for nonmedical reasons may also create oral pathologic conditions. To minimize injury, recommended alternatives to dental surgery include behavioral assessment and modification, environmental enrichment, changes in group composition and improved animal housing and handling techniques.

Use of Electro Muscular Disruption Devices (EMDDs) on Animals  
(Approved April 2010; Reaffirmed November 2014)  
EMDDs (including stun guns and devices known by trade name "TASER®") should not be used on any animal for routine capture or restraint.

EMDD's may be used as a defensive tool to provide an Animal Control or Law Enforcement Officer with non-lethal force in response to aggressive dogs or similar sized animals in accordance with agency training, policies and procedures. EMDD's can be lethal and should not be used on cats or other small animals.

For additional information on electro muscular disruption devices, please visit:


Euthanasia of Animals that are Unwanted or Unfit for Adoption  
(Approved April 2000; Revised November 2007; Reaffirmed June 2012, April 2017)  
The AVMA is not opposed to the euthanasia of unwanted animals or those unfit for adoption, when conducted by qualified personnel, using appropriate humane methods as described in the AVMA Guidelines for the Euthanasia of Animals.
AVMA Guidelines for Veterinarians and Veterinary Associations Working with Animal Control and Animal Welfare Organizations
(Approved November 2007; revised August 2012)

Statement of Position
Veterinarians, veterinary associations, animal control agencies, and animal welfare organizations have a common bond in the preservation of the life, health, and general well-being of animals of all species.

Veterinary medical associations, animal control agencies, and animal welfare organizations should promote responsible animal ownership and proper, humane care of animals through published literature and individual counseling by their members and staff. Familiarity with the principles of shelter medicine will assist veterinarians in working effectively with animal shelters. Veterinarians should assist sheltering facilities in determining their capacity for humane care given available resources. Suffering of animals in animal shelters and in the community may be reduced through the establishment and use of proactive preventive medicine protocols, such as vaccination on intake, effective cleaning and disinfection, and responsible population management.

Recommendations to Veterinarians and Veterinary Associations
It is recommended that veterinarians and veterinary associations participate in the activities of animal control and animal welfare organizations. This can best be accomplished through membership and active participation in animal control and animal welfare organizations and by promulgating current principles of shelter medicine and humane population management techniques.1,2 Veterinarians may offering advice, training, professional services, and veterinary skills to these organizations and/or their representatives.

Professional skills and services should be offered to animal control and animal welfare organizations, keeping in mind that the welfare of individual animals, animal populations within the shelter, and animal populations within the community must all be considered and balanced in light of available resources. When offering professional services to such organizations, a veterinarian's or veterinary association’s recommendations, decisions, and actions must conform to accepted standards of veterinary practice and the Principles of Veterinary Medical Ethics of the American Veterinary Medical Association.
Veterinarians and veterinary associations are encouraged to assist animal control and animal welfare organizations to provide special plans and/or services, such as health examinations, surgery, immunizations, and/or advice on matters such as sanitation and disease and parasite control. The scope of professional services and detailed contractual arrangements to provide these services must be worked out in advance to the mutual satisfaction of the animal control or animal welfare organization and the veterinarian or veterinary association concerned. Such plans and professional services, when agreed upon, must give the veterinarian responsibility for making medical recommendations in accord with patient and population needs. In addition, contractual agreements should be consistently adhered to and reviewed on a regular basis.

When a veterinarian is presented with an animal for evaluation and care, the veterinarian must confer with the responsible agent of the animal control or animal welfare organization and explain the diagnosis, recommend optional methods of treatment, if any, offer a prognosis, and discuss anticipated costs of treatment. The two parties should consult periodically on the progress of each case to preclude misunderstandings as to the extent of care, or the fees to be incurred. Fees for services should be determined by the veterinarian and the animal control or animal welfare organization as negotiable items. Veterinarians must not render less than their usual high quality services, regardless of the fee charged. Costs of treating the individual animal may negatively impact resources available to provide preventive services for the population and therefore decisions to treat individual animals must be considered in the context of the welfare of the entire population and the resources available to the animal welfare or animal control agency.

ANIMALS USED IN ENTERTAINMENT

Animals Used In Entertainment, Shows, and for Exhibition
(Approved November 2007; Revised June 2012, November 2014)

The AVMA supports the humane and ethical use of animals in spectator events, shows, exhibitions, motion pictures, and television in accord with existing federal, state, and local animal protection laws. Examples of such events include, but are not limited to, animal exhibitions, racing events, field trials, polo, rodeo, and the use of animals for any audiovisual media. The AVMA encourages all organizations involved in such events to develop and abide by guidelines or standards that ensure humane treatment, respect for the animal, appropriate veterinary care, and veterinary oversight of the animals before, during, and after use.

External third party review and assurance of animal welfare standards is recommended. Animal welfare guidelines and standards must prohibit the intentional injury or death, and seek to avoid the unintentional injury or death, of animals as a part of training or for any entertainment purposes. Similarly, activities that substantially compromise animal welfare should be prohibited. Such activities include handling and contact by the general public of animals that are ill, of unknown health status, or that are of a vulnerable age such as neonatal to juvenile nondomestic Carnivora and non-human primates.

Similarly, the AVMA condemns the fraudulent use of drugs and non-nutritive agents, as well as procedures intended to alter the performance, conformation, appearance, or other functions of animals in competition. The AVMA urges its members to promptly report such activities to the appropriate authorities.

Animal Fighting
(Approved November 1999; Revised April 2000, June 2007, August 2012, April 2017)

The AVMA condemns fighting events involving animals in which injury or death is intended. The AVMA supports the enforcement of laws against the use and transport of animals and equipment for fighting ventures. Further, the AVMA recommends that animal fighting be considered a felony offense. The AVMA encourages veterinarians to learn to recognize the signs of animal fighting, educate the public about the harm caused by animal fighting, and to collaborate with law enforcement with respect to recognition and enforcement of applicable laws.
ANIMALS USED IN RESEARCH AND TEACHING

Use of Animals in Research, Testing, and Education
(Approved 1983; Revised November 1995, November 2007, June 3012)

The AVMA recognizes that animals have an important role in research, testing, and education for continued improvement of human and animal health and welfare. The AVMA also recognizes that humane care of animals used in research, testing, and education is an integral part of those activities. In keeping with these concerns, the AVMA endorses the principles embodied in the ‘3Rs’ tenet of Russell and Burch (1959). These principles are: replacement of animals with non-animal methods wherever feasible; reduction of the number of animals consistent with sound experimental design; and refinement of experimental methods to eliminate or reduce animal pain and distress.

The use of animals in research, testing, and education is a privilege carrying with it unique professional, scientific, and moral obligations, and ethical responsibilities. The AVMA encourages proper stewardship of all animals, and supports the judicious use of animals in meaningful research, testing, and education programs. Third party review of welfare of all animals is essential for all facilities.

The AVMA condemns all acts of violence, vandalism, or intimidation directed toward individuals, facilities, or tertiary organizations affiliated with the use of animals in research, testing, or education.

Safety Testing

The AVMA supports research to discover and develop safe and efficacious drugs, vaccines, chemicals, and medical devices that benefit humans and animals. Such research may employ animal-based safety testing, using scientifically valid principles and procedures.

The AVMA strongly endorses continuing efforts to develop and validate alternative safety testing methods that do not use animals.
Use of Random-Source Dogs and Cats for Research, Testing, and Education

The carefully controlled use of random-source dogs and cats can contribute to improving the health and welfare of both animals and human beings, and is consistent with the principles embodied in the 3Rs tenet of Russell and Burch.\(^a\) The Institute for Laboratory Animal Research (ILAR) of the National Academy of Sciences (NAS) issued a report on the Scientific and Humane Issues in the Use of Random Source Dogs and Cats in Research (2009) that makes recommendations on the use of random-source dogs and cats, as well as class B dealers. The AVMA believes there is justification for prudent and humane use of random-source dogs and cats in research, testing, and education, provided that:

• The institution conducting such research, testing, or education has met all legal requirements and guidelines pertaining to the acquisition, care, and use of dogs and cats for these purposes;

• The need for such dogs and cats, which species and type are most appropriate, and the number required to meet the needs of the protocol have been carefully determined;

• Adequate safeguards are used to ensure that only appropriately screened dogs and cats are obtained legally; and preventive measures are taken to optimize the health and welfare of dogs and cats used in research, testing, and education.

• Class B\(^b\) dealers are used to obtain random-source dogs and cats only when alternatives do not exist; and

• Alternative sources\(^c\) are explored and supported that will ultimately eliminate the need for Class B dealers as a source for random-source dogs and cats used in research, testing, and education.

\(^{a}\) Reduction, refinement, replacement

\(^{b}\) Class B dealers acquire dogs from random sources, such as individual owners, small hobby breeders, and animal pounds and shelters. Often these are mature, large, socialized dogs of mixed breeds.

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Legal alternatives for dogs and cats from Class B dealers include Class A dealers, privately owned colonies (often established by donations from breeders or owners because of genetic defects), client-owned animals (e.g., animals participating in carefully controlled and monitored veterinary clinical trials), donor programs, and non-animal models. Donor programs encourage the voluntary provision of tissue samples obtained during the course of an animal’s diagnosis and treatment in veterinary hospitals or the bodies of animals euthanized for other reasons (including veterinary client and shelter/animal control donations).

**USDA-APHIS Animal Welfare Program**  
(Approved 1983; Revised May 2003, April 2009; Reaffirmed 11/2013)

The AVMA supports enforcement of the Animal Welfare Act for the protection of animals (as designated by the Secretary of Agriculture) used for nonagricultural research, testing, teaching, or exhibition. The AVMA encourages adequate funding for the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) to conduct activities necessary to ensure compliance with the Act.

**Use of Animals in Precollege Education**  
(Approved June 2012)

The AVMA encourages the use of alternatives to live animals for precollege classroom instruction. While the AVMA recognizes that exposure to animals may engender interest and excitement in children for science, this must be balanced with optimizing the well-being of animals that may be used. Many of the same goals can be accomplished through use of other instructional devices, including video, web-based tutorials and study sets, mock physiology datasets, plastinated and preserved specimens, and observational field studies or trips to zoologic or aquatic facilities.
When alternatives to live animal use are not available, pertinent standards must be followed that protect the welfare of animals being used. Noninvasive and observational uses of animals are encouraged and uses that cause more than momentary distress should be prohibited. Schools or school boards should develop a committee to review the use of animals in instruction or science projects and include a review of the following items: justification for live animal use, including discussion of alternatives considered and rejected, detailed description of the types and numbers of animals to be used, a discussion of pedagogical merit for live animal use, and a detailed description of what will be done with the animals, including transportation. A specific and knowledgeable instructor should take primary responsibility for animal use and ensure that animals are well cared for on a daily basis during their time in the educational program. Veterinary care must be provided to animals as needed.

References:
National Academy of Sciences (NAS)

Transportation of Research Animals
(Approved 2015)

Transportation of research animals refers to any movement of all animals intended for use in biomedical research, testing, and/or education from one facility (dedicated breeding or research) to another. This includes purpose-bred animals, legally obtained random-source animals, hoof stock, and genetically altered (e.g., transgenic and knock-out) animals. The AVMA supports the transportation of animals for research, testing and education when that transportation is conducted in accord with guidelines that assure animals are handled properly and transport is conducted humanely. Those handling research animals during transport must be well trained and competent in performing related tasks and making related decisions.
COMPANION ANIMALS

Companion Animal Care Guidelines
(Approved April 1991; Revised November 2014)

Preface
The following are general guidelines for the proper care and humane treatment of animals in nonagricultural facilities, such as humane societies, municipal animal control agencies, pet stores, boarding kennels, dog training establishments, grooming facilities, dealers, and veterinary hospitals and clinics. A single set of guidelines cannot completely describe appropriate care for all species in all situations; therefore you should always consult a veterinarian for advice and specific recommendations.

Personnel
Staff should be screened and selected for suitability to tasks assigned and should be trained in performance of their duties. Training must address animal, personal, and public safety, and appropriate handling and animal restraint techniques. Performance should be monitored on a continual basis.

Animal Husbandry

Housing or Caging—Caging or housing systems should provide adequate space and accommodate appropriate population densities, allow animals sufficient freedom of movement, permit normal postural adjustments, and include a resting place appropriate for the species being housed.

Preventive medicine areas for isolation of sick animals and quarantine of newly arriving animals should be provided where appropriate.

Special housing accommodations are sometimes necessary for unusual species such as those with unique metabolic or genetic characteristics, or special behavioral and/or reproductive needs. Exercise areas, runs, or pens should be considered for animals that will be held for long periods. Other primary considerations include:

Safety—Providing a secure enclosure that addresses physical safety, fear, and stress;

Food and water—Providing easy access to food and water;

Biological needs—Maintaining appropriate body temperature, permitting urination and defecation, ensuring timely waste removal, and, as appropriate, facilitating or preventing reproduction;
Cleanliness—Keeping animals dry and clean, depending on species requirements;

Restraint—Avoiding unnecessary physical restraint; and

Behavior—Ensuring the animals’ ability to engage in normal species behavior.

Animals housed outdoors should have access to shelter from the elements. Caging or housing systems should be constructed of sturdy, durable materials and be designed to maximize biosecurity. Surfaces should be smooth and impervious to moisture, and be designed for easy maintenance. The design should allow for easy inspection of cage occupants. Feeding and watering devices should be easily accessible for filling, changing, cleaning, and servicing.

Caging, runs and pens must be kept in good repair to prevent injury, maintain physical comfort, and facilitate sanitation and servicing. Sharp edges and broken wires must be eliminated, floors must be kept in good condition, and deteriorating equipment must be refurbished or replaced. Rough surfaces or uncoated wire flooring in primary enclosures should be avoided because they can lead to foot and skin trauma. Flooring material should not flex under weight, should accommodate footing and resting off of open metal floors, and may have perforations large enough to allow only moisture to pass through. Separation between food and water, urination and defecation, and resting areas should be maximized.

Feeding—Animals shall be fed palatable and nutritionally adequate food daily or according to their particular needs. Feeders must allow easy access to food, and soiling by urine and feces must be prevented. Food must be available in amounts sufficient to provide for normal growth, and maintenance of normal body weight, reproduction, and lactation. Areas where food is prepared or stored must be kept clean.

Bulk supplies of food should be stored in designated areas that are cool, dry, clean, and free of vermin, preferably off the floor on pallets, racks, or carts. Storage time should be minimized and the manufacturer's recommendations for proper storage followed to preserve nutritional quality and prevent contamination. Open bags of food should be stored in vermin-proof containers. Food containers must be sanitized frequently.
Watering—Animals must have access to fresh, potable, uncontaminated drinking water. Watering devices such as drinking tubes and automatic waterers should be examined routinely to ensure their proper operation. When water bottles are used, they should be appropriately sanitized.

Food and/or water may be temporarily withheld at the direction of an attending veterinarian.

Bedding—Bedding should be appropriate, free of toxic chemicals or other substances that could injure animals or personnel, and of a type not easily eaten by animals.

Animal Environment

Temperature and Humidity—Appropriate environmental conditions vary with the species of animal being housed. Generally, for dogs and cats, the ambient temperature should be kept above 50 degrees Fahrenheit (10 degrees Celsius), and below 80 degrees Fahrenheit (26.6 degrees Celsius), and the relative humidity should range from 30 to 70%. Animals should be protected from extreme temperatures so as to maintain their health and render their environment comfortable. When climatic conditions pose a threat to the animal’s health or well-being, taking into consideration its age, breed, overall health status, and acclimation, then appropriate measures must be taken to alleviate the impact of those conditions.

Ventilation—Ten to twenty room air changes per hour are generally considered adequate ventilation for animal facilities. Room air should not be recirculated unless it has been properly treated. Proper ventilation removes heat, dampness, odor, airborne microbes, and pollutant gases such as ammonia and carbon monoxide, while allowing for the introduction of fresh air. If recirculating systems or other energy-recovery devices are used, these systems must be adequately maintained. Areas for quarantine, isolation, or soiled equipment should be appropriately exhausted to avoid contamination.

Lighting—Lighting may be both natural and/or artificial, and should be uniformly distributed throughout animal facilities, of sufficient intensity to permit good observation of animals, provide a photoperiod control appropriate to the species, and contribute to a safe working environment for personnel. Emergency lighting should be provided.

Noise—Activities that create noise with the potential to cause stress should be minimized and conducted away from animal housing. Excessive noise should be minimized by training staff and by use of appropriate equipment and facilities. Animals that produce levels of noise having the potential to
cause stress should be housed separately. Appropriate noise protection for personnel should be provided where noise levels are high.

Social—Where group housing is appropriate, consideration should be given to behavioral and social interactions. Environmental enrichment provided should be appropriate to the species. Human interactions should be incorporated into daily routines where appropriate. Play opportunities and enrichment should be provided on a regular basis.

Sanitation
Cleaning—All equipment and areas must be cleaned with appropriate detergents and disinfectants as often as needed to keep them sanitary and free of debris and harmful contaminants. Bedding used in cages or pens should be changed as required to keep animals dry and clean. Animal waste should be removed at least once daily, via collection, hosing, or flushing. Animals should be kept dry during these procedures. Litter should be emptied from cages and pens in a manner that minimizes exposure of animals and personnel to aerosolized waste. Cages must be sanitized, using proper agents followed by thorough rinsing, before animals are placed in them. Animals and personnel must be protected from noxious agents. Waste cans or containers must be cleaned and sanitized frequently. The facility should be cleaned in order of animal susceptibility to disease and potential risk to the general population, starting with the most susceptible animals and ending with those who carry the highest risk of transmitting infectious disease.

Waste Disposal—Waste must be removed regularly and frequently, and in compliance with all federal, state, and local laws and regulations. Waste cans should be leak-proof and have tight-fitting lids. Waste storage areas should be separate from animal housing areas and be kept free of vermin. Biological wastes must be stored appropriately prior to disposal.

Vermin—A program to control, eliminate, and prevent infestation by vermin is required. Preventing entry is the most effective method, and may be accomplished by screening openings, sealing cracks, and eliminating breeding and refuge sites. When possible, relatively nontoxic compounds (e.g., boric acid) or drying substances (e.g., amorphous silica gel) should be used to control insects.
Identification and Records

An individual record should be prepared for each animal. Records should include a description of the animal, the date obtained, the source, the length of time held, and any treatment provided together with its final disposition. Individual animals should be identified in a consistent and recordable manner (e.g., tags, cage cards, microchips, tattoos). Identification should be physically attached to the animal for the duration of its stay unless this poses a safety hazard for the animal or staff.

Weekend and Holiday Care
Animals must be observed and cared for by qualified personnel every day. Procedures must be established for providing animal care during emergencies.

Disaster Plan
A disaster plan should be prepared and rehearsed. Appropriate training for personnel should be provided.

Veterinary Care and Euthanasia
A program of preventive and emergency medicine must be established by and supervised by a veterinarian. Sick or injured animals must receive veterinary care promptly. Medications and treatments must only be administered under the advice of or in accordance with written protocols provided by a veterinarian, and all drugs must be dispensed in accordance with federal and state regulations. An emergency medical plan must be in place to provide appropriate and timely veterinary medical care for any animal who is injured, in distress, or showing signs of illness. Animals should be euthanatized when necessary only by qualified personnel, in accordance with recommendations in the current AVMA Guidelines for the Euthanasia of Animals, and as permitted by law.

References

Standards for AAHA Hospitals, American Animal Hospital Association, PO Box 150899, Denver, Colorado 80215.


Animal Welfare Act, as amended, including the accompanying regulations. US Department of Agriculture, Animal and Plant Health Inspection Service, Regulatory Enforcement and Animal Care, Riverdale, Maryland 20737.

Training Guide, National Animal Control Association, PO Box 480851, Kansas City, Missouri 64148.

Federation of Animal Science Societies, 1111 N Dunlap Avenue, Savoy, Illinois 61874.


**Dog and Cat Population Control**
(Approved November 2004, Revised April 2009)

The population of dogs and cats in the United States currently exceeds the capacity of our society to care and provide homes for them as companion animals. As a result, millions do not have homes and are euthanized annually by animal control agencies, humane organizations, and veterinarians in private practice. Dogs and cats that are not adopted can become victims of trauma, starvation, or disease. The AVMA concludes that dog and cat population control is a primary welfare concern of our society.

A. Public Policy

The AVMA does not support regulations or legislation mandating spay/neuter of privately owned, non-shelter dogs and cats. Although spaying and neutering helps control dog and cat populations, mandatory approaches may contribute to pet owners avoiding licensing, rabies vaccination and veterinary care for their pets, and may have other unintended consequences.

The AVMA believes that state and local governments must evaluate their needs and resources to develop appropriate and effective dog and cat population control programs. This would include:

1. Providing sufficient funding to animal control agencies to facilitate:
   a. Strict enforcement of existing animal control laws, and
   b. Licensing of all dogs and cats.
2. Prohibiting the sale or adoption of intact dogs and cats by humane organizations and animal control agencies.
3. Promoting surgical and nonsurgical sterilization of intact dogs and cats. Just as for other veterinary medical and surgical procedures, veterinarians should use their best judgment in recommending at what age sterilization should be performed for individual animals.
4. Requiring licensing, rabies vaccination and permanent identification through microchipping.

B. Research
1. The AVMA encourages research into the development and use of nonsurgical methods of sterilization.
2. The AVMA encourages research to better define and quantify the dog and cat overpopulation problem.

C. Education
1. The AVMA supports public education campaigns that help pet owners be more responsible and concerned.
2. Comprehensive public education campaigns to prevent relinquishment require the commitment and cooperation of state and local governmental agencies, humane organizations, and veterinary associations.
3. Education to prevent relinquishment should include tenets of responsible pet ownership, including appropriate selection, the importance of spaying and neutering, keeping pets indoors or in restricted environments, preventing or solving behavioral problems, and consulting with veterinarians for information on these issues.
4. The AVMA encourages all independent sources of pets (e.g., breeders, pet shops, shelters, animal control facilities, private individuals) to educate new owners about the importance of surgical or nonsurgical sterilization and regular veterinary care.
5. Schools of veterinary medicine and veterinary technology should emphasize the prevention and/or solution of behavioral problems and other factors leading to dog and cat relinquishment.
Pediatric Spay/Neuter of Dogs and Cats

The AVMA supports the concept of pediatric spay/neuter in dogs and cats in an effort to reduce the number of unwanted animals of these species. Just as for other veterinary medical and surgical procedures, veterinarians should use their best professional judgment based on the current scientific literature in deciding at what age spay/neuter should be performed on individual animals. The decision should be made by the animal's owner in consultation with a veterinarian after discussing associated risks and benefits.

Free-roaming Abandoned and Feral Cats
(Approved November 2004; Revised November 2005, November 2009, January 2016)

The AVMA recognizes a mutual goal of veterinarians, humane groups and wildlife conservation entities is to reduce the number of free-roaming abandoned and feral cats in a humane and ethical manner. It therefore actively encourages collaborative efforts to identify humane and effective alternatives to the destruction of healthy cats for animal control purposes, while minimizing their negative impact on native wildlife and public health.

Millions of these free-roaming abandoned and feral cats exist in the United States. Most of these cats will suffer premature mortality from disease, starvation, weather extremes, or trauma, or euthanasia. Negative impacts are not limited to the cats themselves. Free-roaming abandoned and feral cats are non-native predators and cause considerable wildlife destruction and ecosystem disruption, including the deaths of hundreds of millions of birds, small mammals, reptiles, amphibians, and fish. They also pose a threat to public health. Zoonotic concerns include viral (e.g. rabies), bacterial (e.g. *Yersinia pestis*, *Francisella tularensis*, *Campylobacter* spp., *Bartonella* spp.), fungal (e.g. *Microsporum canis*), and parasitic (e.g. *Cryptosporidium* spp., *Toxacara cati*, *Toxoplasma gondii*, *Cheyletiella* spp.) diseases.

The AVMA recognizes that multiple approaches have been suggested to reduce the population of free-roaming abandoned and feral cats. Currently there is no single solution that effectively addresses all aspects of the problem in every situation. Any interventions to manage the problem of free-roaming abandoned and feral cats should be well thought out, with consideration given to the welfare of the cats and wildlife themselves, the ecosystem in which the intervention will be conducted, the expertise and abilities of those implementing the intervention, societal and cultural attitudes, and public health.
Education
Public education about the risks posed by free-roaming abandoned and feral cats, prevention through the responsible care of privately owned cats, and various management approaches directed toward existing abandoned and feral cat populations is critical. Specific educational elements include:

- The welfare of these cats may be significantly diminished. Their life expectancy is radically reduced due to death from trauma, disease, starvation, and weather extremes. These same factors may also contribute to an overall poor quality of life.
- Feline abandonment and feral cat populations adversely affect wildlife, ecosystems, and public health.
- Responsible care of privately owned cats is an effective preventative. This includes appropriate identification, vaccination, sterilization, and confinement.

Encouragement of State and Local Ordinances
The AVMA strongly supports reducing and controlling the number of free-roaming abandoned and feral cats through humane capture by local health departments, humane societies, and animal control agencies. Free-roaming abandoned and feral cats that are not in properly managed colonies should be removed from their environment and treated in the same manner as other abandoned and stray animals in accordance with local and state ordinances. State and local agencies should adopt and enforce ordinances that:

- Prohibit the abandonment of owned cats.
- Require sterilization of all cats adopted from humane organizations and animal control agencies.
- Require rabies vaccination.
- Require microchip identification of all owned cats and cats in managed colonies.
- Require cats in managed colonies be ear tipped when spayed or neutered.
- Encourage keeping owned cats be kept indoors, in an outdoor enclosure, or on an attended leash.
- Prohibit public feeding of intact free-roaming abandoned and feral cats.
- Prevent establishment of managed cat colonies in wildlife-sensitive ecosystems.

Non-lethal Strategies
AVMA encourages the use of non-lethal strategies as the initial focus for control of free-roaming abandoned and feral cat populations. Public, private, and not-for-profit humane organizations and individuals must make every
effort to promote adoption of acceptable unowned cats and implement sterilization programs. Control of free-roaming abandoned and feral cats may be improved when:

- State and local agencies provide significantly more funding for animal control agencies.
- Concerted and sustained public educational campaigns highlight the problems associated with free-roaming abandoned and feral cats, as well as effective efforts toward their control.
- An environmentally safe, easily administered, and effective nonsurgical contraceptive is developed.

The AVMA recognizes that managed colonies are controversial. However, properly managed programs can improve quality of life for these cats through better nutrition, vaccination to prevent disease, spaying and neutering to reduce unwanted litters, euthanasia of sick and debilitated cats, and adoption of healthy kittens. The goal of colony management should be continual reduction and eventual elimination of the colony through attrition. Appropriately managed colonies also have the potential to significantly decrease risk to public health, wildlife, and ecosystems.

For colonies not achieving attrition and posing active threats to the area in which they are residing, the AVMA does not oppose the consideration of euthanasia when conducted by qualified personnel, using appropriate humane methods as described in the AVMA Guidelines for the Euthanasia of Animals.

**Research**
The AVMA encourages research:

- To develop an environmentally safe and effective oral or parental contraceptive vaccine.
- To determine efficacy of current models and development of new methods for management of free-roaming abandoned and feral cats.
- To learn more about the health of free-roaming abandoned and feral cats.
- Into the origin of free-roaming abandoned and feral cats such as animal abandonment by the public.
- That better defines the impact of free-roaming cats on native wildlife populations.
Free-Roaming, Owned Cats  
(Approved June 2001, Revised July 2011, August 2016)

The AVMA encourages veterinarians to educate clients and the public about the risks associated with allowing cats free-roam access to the outdoors. Keeping owned cats confined, such as housing them in an enriched indoor environment, in an outdoor enclosure, or exercising leash-acclimated cats, can minimize the risks to the cat, wildlife, humans, and the environment.

Free-roaming cats may have a reduced life span and be exposed to injury, suffering, and death from vehicles; attacks from other animals; euthanasia; human cruelty; poisons; traps; and weather extremes.

The natural hunting behavior of free-roaming cats results in wildlife species being pursued, injured, and killed. This behavior negatively impacts the prey animal’s welfare, and may have a negative effect on native wildlife populations and contribute to ecosystem disruption. Free-roaming increases the cat’s exposure to infectious, parasitic, and zoonotic disease.

A safe form of identification (e.g., microchipping) facilitates the return of a lost cat to its owner. In addition, owners allowing their cats to roam freely may be in violation of local laws if the cat is not confined to its yard or walked with harness and leash.

Declawing of Domestic Cats  
(Approved March 2003; Revised April 2009, July 2014)

The AVMA strongly encourages client education prior to consideration of onychectomy (declawing). It is the obligation of the veterinarian to provide cat owners with a complete education with regard to the normal scratching behavior of cats, the procedure itself, as well as potential risks to the patient. Onychectomy is an amputation and should be regarded as a major surgery. The decision to declaw a cat should be made by the owners in consultation with their veterinarian. Declawing of domestic cats should be considered only after attempts have been made to prevent the cat from using its claws destructively or when its clawing presents an above normal health risk for its owner(s).

The following points are the foundation for full understanding and disclosure regarding declawing:

- Surgical declawing is not a medically necessary procedure for the cat in most cases. While rare in occurrence, there are inherent risks and
complications with any surgical procedure including, but not limited to, anesthetic complications, hemorrhage, infection and pain. If surgical onychectomy is performed, appropriate use of safe and effective anesthetics and perioperative analgesics for an appropriate length of time are imperative. Pain management is necessary (not elective) and required for this procedure. Multimodal pain management is recommended, and there should be a written aftercare plan. The surgical alternative of tendonectomy is not recommended.

- Scratching is a normal feline behavior, is a means for cats to mark their territory both visually and with scent, and is used for claw conditioning ("husk" removal) and stretching activity.

- Owners should provide suitable implements for normal scratching behavior. Examples are scratching posts, cardboard boxes, lumber or logs, and carpet or fabric remnants affixed to stationary objects. Implements should be tall or long enough to allow full stretching, and be firmly anchored to provide necessary resistance to scratching. Cats should be positively reinforced in the use of these implements.

- Appropriate claw care (consisting of trimming the claws every 1 to 2 weeks) should be provided to prevent injury or damage to household items.

- Temporary synthetic nail caps are available as an alternative to onychectomy to prevent human injury or damage to property. Plastic nail caps are usually applied every 4 to 6 weeks.

- Declawed cats should be housed indoors and allowed outside only under direct supervision.

- Scientific data do indicate that cats that have destructive scratching behavior are more likely to be euthanatized, or more readily relinquished, released, or abandoned, thereby contributing to the homeless cat population. Where scratching behavior is an issue as to whether or not a particular cat can remain as an acceptable household pet in a particular home, surgical onychectomy may be considered.

- There is no scientific evidence that declawing leads to behavioral abnormalities when the behavior of declawed cats is compared with that of cats in control groups.

For additional information on declawing of domestic cats, please visit: http://www.avma.org/KB/Resources/Backgrounders/Documents/declawing_bgnd.pdf
Ear Cropping and Tail Docking of Dogs
(Approved July 1999, Revised November 2008; Reaffirmed November 2012, April 2017)

The AVMA opposes ear cropping and tail docking of dogs when done solely for cosmetic purposes. The AVMA encourages the elimination of ear cropping and tail docking from breed standards.

For additional information on ear cropping of dogs, please visit:
http://www.avma.org/KB/Resources/Backgrounders/Pages/Welfare-Implications-of-Ear-Cropping-Dogs-Backgrounder.aspx


For additional information on tail docking of dogs, please visit:
http://www.avma.org/KB/Resources/Backgrounders/Pages/Welfare-Implications-of-Tail-Docking-Dogs-Backgrounder.aspx

http://www.avma.org/KB/Resources/FAQs/Pages/Frequently-asked-questions-about-canine-tail-docking.aspx

Canine Devocalization
(Approved June 2002; Reaffirmed April 2008; Revised 01/2013)

Canine devocalization should only be performed by qualified, licensed veterinarians as a final alternative to euthanasia after behavioral modification to correct excessive vocalization has failed and after discussion of potential complications from the procedure with the owner. When dogs are housed in groups (e.g. laboratories, breeding facilities, kennels) devocalization should not be used as an alternative to appropriate animal management and facility design.

For additional information on canine devocalization, please visit:
http://www.avma.org/KB/Resources/Backgrounders/Pages/Canine-Devocalization-Backgrounder.aspx
Transport of Dogs in Open Cargo Areas of Pickup Trucks
(Approved June 2001; Revised April 2008)

Transport of dogs, loose or tethered, in open cargo areas of pickup trucks is not safe. Properly secured, size-appropriate kennels that are appropriately ventilated and allow climatic conditions suitable for a dog’s breed and conditioning to be maintained are the preferred means of transport of dogs in open cargo areas of pickup trucks.

For additional information on transport of dogs in open cargo areas of pickup trucks, please visit: http://www.avma.org/KB/Resources/Backgrounders/Pages/Dogs-Traveling-in-Truck-Beds-Backgrounder.aspx

(Approved September 2016)

Humane methods for managing stray or roaming dogs are a primary means to control injuries and deaths from dog bites and transmission of zoonotic diseases, such as canine rabies.

Roaming dogs can present risks to communities, such as zoonotic disease transmission and injuries from dog attacks. The most effective strategy to mitigate such risks is the adoption of humane and sustainable methods of controlling stray dogs.

Background

There are millions of roaming dogs worldwide, many of which are classified as either true stray (no owner) or free-roaming (owned dogs that are allowed to roam freely). Some people consider all roaming dogs as stray, while others make a distinction among multiple types (e.g., individual, community) and styles of ownership (e.g., responsible, irresponsible, culturally dependent) that can lead to dogs not being restrained either on or off the owner’s property. Even among dogs that are privately and responsibly owned, degree of control may vary. For example, while accompanying their owners, some dogs may be on a leash, while others may be supervised (beside the owner but unleashed) with the owner having varying degrees of control over the dog’s behavior.
The welfare of roaming dogs varies widely depending on location, community culture, and owner behavior. Negative outcomes associated with roaming dogs may include unplanned and uncontrolled breeding leading to overpopulation; dangerous behaviour, such as attacks on people and livestock; dogs acting as zoonotic disease reservoirs and vectors; and nuisance behaviour, such as noisy barking or soiling of the environment. This can lead to roaming dogs becoming a community problem.

While stray dogs may exacerbate the issue in some countries, statistically, more dog bite injuries and rabies result from privately owned or community owned freely roaming dogs that are contextually different from true strays (1).

**Challenges**

When a government or responsible authority at the local or national level seeks to address a roaming dog problem, it may resort to ineffective measures such as culling dogs. However, the mass killings that sometimes result, and the methods used to kill the dogs, may vary from humane to cruel and brutal. Also, evidence suggests sustainable solutions must address the root causes leading to a roaming dog problem.

Sustainable approaches may lack appeal when communities are facing a dog population-related crisis, such as a real or feared disease outbreak (e.g., human rabies), natural disaster, or other human impacts resulting in political/public pressure (e.g., traffic accidents, dog bite injuries). Even in responding to acute situations, communities can only succeed if they take a coordinated, humane approach targeted at the underlying causes of their problem.

Affected communities may struggle to effectively and responsibly manage dog populations due to a lack of understanding of all the factors that contribute to the problem in their locale. Consideration must be given to:

- Engaging skilled personnel to develop and implement a humane animal control program best suited to local conditions. This should include involvement of people with veterinary and other technical knowledge to deliver interventions and maintain equipment and facilities, as well as those necessary to engage and educate the local community, gain the support of necessary persons and agencies, and obtain funding.

- Developing a formal written plan that includes data collection to establish a baseline and measure program impacts. This will assist in demonstrating need for resources and the efficacy or inefficacy of the current and any previous programs.
• Identification of agencies able or willing to support a humane animal control program. These may include governmental agencies, granting bodies, charities, local businesses, and private individuals. A smaller-scale pilot program might be considered to demonstrate competency and commitment to potential funders.

• Community education regarding responsible dog ownership, to include spay/neuter or other methods to control breeding, preventive healthcare, socialization, training, and appropriate control and containment of dogs.

**Developing Effective Dog Population Management**

The AVMA and World Animal Protection recommend that governments and responsible authorities implement humane strategies to manage dog populations, including addressing unplanned and uncontrolled breeding and promoting responsible ownership in ways that are locally and culturally relevant and welfare friendly.

Guidance on effective dog population management is detailed in the International Companion Animal Management (ICAM) methodology. This methodology recommends that, following initial data collation, assessment, and consideration of the influential factors, authorities consider the following components of a comprehensive program: education, legislation, registration and identification, sterilisation and contraception, holding facilities and rehoming centres, euthanasia, vaccination and treatment and controlling access to resources. (2)

Application of the ICAM methodology will allow governments and responsible authorities to address the underlying human behavioural, environmental, and ecological factors that may contribute to the perpetuation and persistence of roaming dog populations. In addition to focusing on resolving immediate issues, effective dog population management can help avoid recurrences and prevent new problems from emerging.

Each situation requires a comprehensive assessment of the community’s needs and a decision regarding the most effective and resource-efficient approach to managing the population in a humane manner. The status, composition and size of dog populations can vary substantively between and within communities, and there is no single intervention that will work for all situations. Dog population management programs utilize tried-and-true methods, but also support the application of welfare-friendly approaches and procedures developed through new research (e.g., surgical and nonsurgical sterilization, vaccination and other preventive healthcare). (3)
To ensure a comprehensive and consistent approach, ideally, a community’s program should be coordinated by the local authority responsible for dog population management. All stakeholders should work with the authority to determine how they may best support the program to maximize its impact. Dog population management activities should be selected and implemented based on the priorities identified in the initial needs assessment. (4)

**Euthanasia**

Euthanasia is one potential component of a dog population management program. Euthanasia is the act of inducing death in a humane manner (5). A sustainable animal control program should move communities from euthanasia being provided due to the effects of overpopulation or insufficient care, to euthanasia offered for individual health reasons on a much smaller scale.

Death is inevitable for all animals. However, suffering in the period leading up to death is not always inevitable and can often be avoided by thoughtful human intervention. From an animal welfare perspective, when the suffering of an animal cannot be effectively reduced or prevented, humanely ending the life of the suffering animal may be considered the best course of action for the animal. (6)

In some situations the decision is clear, for example when the law states that a rabid animal must be euthanized to prevent the spread of disease. However, in other situations the decision may be more complex, because other external factors (e.g., financial resources, housing facilities, veterinary expertise) impact whether it is possible to maintain a reasonable quality of life for a particular animal. (6)

Quality of life is a subjective term. It can be helpful to think about animal needs in terms of the ‘five welfare needs’ (6) developed specifically for companion animals from the widely recognized ‘five freedoms’. (7)

Five welfare needs:

- Need for a suitable environment.
- Need for a suitable diet.
- Need to be able to exhibit normal behavior patterns.
- Need to be housed with, or apart from, other animals.
- Need to be protected from pain, suffering, injury and disease.
A life or death decision can be based on whether or not the animal in question has the prospect of a life worth living. A simple way of expressing this would be that a life is worth living when an animal’s positive experiences outweigh the negative and the animal enjoys physical and psychological well-being. This subjective evaluation becomes more standardized when the tangible ‘five welfare needs’ described above are applied as a guide.

It is important that governments and responsible authorities involved in dog population management develop a comprehensive euthanasia policy with the following components:

- Initial review – understanding the situation and the need for euthanasia
- An overarching euthanasia policy
- An assessment method for the euthanasia of individual animals to guide skilled personnel in deciding when euthanasia is appropriate.
- Attention to the welfare of the animal during handling prior to, as well as during, the procedure.

The assessment tool should specify the methods of euthanasia that fit within the legal framework of the community and should be approved by veterinary stakeholders (6).

As a basic requirement euthanasia must:

- Minimize pain and discomfort
- Achieve rapid unconsciousness followed by death
- Minimize animal fear and distress
- Be reliable and irreversible.

An overview of methods for euthanasia can be found in the AVMA Guidelines for the Euthanasia of Animals: 2013 Edition (8). This comprehensive resource discusses various euthanasia methods, including:

- Non-inhalant injectable pharmaceutical agents
- Inhalant agents (gases)
- Physical methods
Which approach to euthanasia is most appropriate requires careful consideration of multiple factors related to animals, people, and environment. Accordingly, professional judgment is implicit in the implementation of related guidance.

REFERENCES


The American Veterinary Medical Association (AVMA; www.avma.org) strives to improve animals’ health and welfare and public health, and advance the veterinary medical profession.

World Animal Protection (www.worldanimalprotection.org) works to create a world where animals live free from suffering, and strives to move the world to protect animals.

The AVMA and World Animal Protection are committed to promoting humane solutions that benefit animal and human health and welfare.

**Inherited Disorders In Responsible Breeding Of Companion Animals**  
(Approved January 2017)

To maximize the health and welfare of companion animals, the AVMA supports research in genetic and inherited disorders to better educate the profession and breeders on identifying and minimizing inherited disorders in companion animal breeding programs. To assist with this, the AVMA encourages veterinarians to pursue continuing education in the emerging area of genetic disease in companion animals. The AVMA also encourages veterinarians to educate breeders, companion animal owners, and the public on the responsibilities involved with breeding and selecting companion animals.

**HORSES**  
**Horse Tripping**  
(Approved April 2014)

The AVMA opposes tripping, injuring or causing the death of horses, mules and donkeys for any entertainment purpose or during the training of such equids for any entertainment purpose.

**Humane Transport of Equines**  
(Approved April 2008; Reaffirmed November 2012; Revised April 2017)

Studies published in peer-reviewed journals and the professional experience of veterinarians indicate that more equines are injured during transport in double-deck trailers than in single-deck trailers. The AVMA supports the use of best practices when transporting animals and therefore opposes the use of
double-decked trailers to transport equines. In addition, the AVMA encourages state and federal agencies that govern the transport of equines to adopt rules, regulations, and enforcement provisions that ensure equines are transported humanely.

In general, the AVMA believes conveyances used to transport equines must be designed, constructed and maintained to protect the health and welfare of the equines being transported at all times. Equine health risk factors associated with inadequate trailer construction include, but are not limited to:

- trailer and ramp flooring that fails to fully support all horses being conveyed;
- sharp protrusions that can cause injury;
- windows and upper doors that can no longer open fully to provide necessary ventilation nor close completely to prevent drafts.

Properly constructed trailers will:

- accommodate segregation of stallions and aggressive equines so that no stallion or aggressive equine can come into contact with other equines on the conveyance;
- have sufficient interior height to allow each equine on the conveyance to stand with its head extended to its fullest normal postural height;
- not comprise animal cargo space that is divided into two or more stacked levels (conveyances with collapsible floors may be configured to transport equines on one level only, so long as the collapsed configuration meets the height requirements previously specified); and
- be equipped with doors and ramps of sufficient size and location to allow safe loading and unloading.

Proper loading will ensure that each equine is provided with sufficient space to shift its weight as needed, and is not crowded in a way that is likely to cause injury or discomfort.
Transportation and Processing of Horses
(Approved May 2003, Reaffirmed endorsement November 2008, November 2014)

The AVMA endorses the American Association of Equine Practitioners' policy on transportation and processing of horses, which reads as follows:

“The AAEP advocates the humane treatment of all horses and believes the equine industry and horse owners have a responsibility to provide humane care throughout the life of the horse. However, a small percentage of horses are ultimately unwanted because they are no longer serviceable, are infirm, dangerous, or their owners are no longer able to care for them. The AAEP recognizes that the processing of unwanted horses is currently a necessary aspect of the equine industry, and provides a humane alternative to allowing the horse to continue a life of discomfort and pain, and possibly inadequate care or abandonment. The AAEP encourages, fosters and provides education regarding responsible ownership and management that will reduce the number of unwanted horses. In addition, the AAEP supports and commends the efforts of equine retirement facilities and adoption groups.

Regarding the care of horses destined for processing, the AAEP’s position is that these horses should be:

- Treated humanely and with dignity;
- Transported to the production facility according to the guidelines approved by the United States Department of Agriculture in 2002;
- Euthanized in a humane manner in accordance with the guidelines established by the American Veterinary Medical Association.¹

In addition, the AAEP recognizes that human consumption of horsemeat is a cultural and personal issue and does not fall within the purview of the association, whose mission is the care of the health and welfare of the horse throughout its life.”

Practice of Soring
(Approved May 2003, Reaffirmed endorsement April 2009, November 2013)

The AVMA endorses the American Association of Equine Practitioners’ position on the practice of soring, which reads as follows:

“The AAEP condemns the practice of ‘soring,’ as legally defined in the Horse Protection Act of 1970 (HPA), to accentuate a horse’s gait for training or show purposes. The AAEP supports the efforts of APHIS in the application and enforcement of the HPA as outlined in the APHIS Horse Protection Operating Plan and strongly recommends imposing sufficient sanctions to prevent these practices. As legally defined in the HPA, ‘soring’ refers to:

- An irritating or blistering agent has been applied, internally or externally, by a person to any limb of a horse;
- Any burn, cut, or laceration has been inflicted by a person on any limb of a horse;
- Any tack, nail, screw, or chemical agent has been injected by a person or used by a person on any limb of a horse; or
- Any other substance or device has been used by a person on any limb of a horse or a person has engaged in a practice involving a horse, and, as a result of such application, infliction, injection, use, or practice, such a horse suffers, or can reasonably be expected to suffer, physical pain or distress, inflammation, or lameness when walking, trotting, or otherwise moving, except that such term does not include such an application, infliction, injection, use, or practice in connection with the therapeutic treatment of a horse by or under the supervision of a person licensed to practice veterinary medicine in the State in which such a treatment was given.”

Tail Alteration in Horses
(Approved June 2012, Revised November 2015)

The AVMA endorses the American Association of Equine Practitioners’ (AAEP) policy on "Tail Alteration in Horses," which reads as follows:

“The American Association of Equine Practitioners condemns to the alteration of the tail of the horse for cosmetic or competitive purposes. This includes, but is not limited to, docking, nicking (i.e., cutting) and blocking. When performed for cosmetic purposes, these procedures do not contribute to the health or welfare of the horse and are primarily used for gain in the
show ring (nicking/cutting, blocking and docking) or because of historical custom (docking). If a horse’s tail becomes injured or diseased and requires medical or surgical intervention, such care should be provided by a licensed veterinarian.

The AAEP urges all breed associations and disciplines to establish and enforce guidelines to eliminate these practices and to educate their membership on the horse health risks they may create. Members of AAEP should educate their clients about the potential health risks, welfare concerns, and legal and/or regulatory ramifications regarding these procedures based on the relevant jurisdiction and/or association rules.”

For additional information on tail alteration in horses, please visit: http://www.avma.org/KB/Resources/Backgrounders/Pages/Horse-Tail-Modifications-Backgrounder.aspx

Use of Action Devices and Performance Packages for Tennessee Walking Horses
(Approved June 2012, Reaffirmed April 2017)

The American Veterinary Medical Association and the American Association of Equine Practitioners support a ban on the use of action devices and performance packages in the training and showing of Tennessee Walking Horses.

Action devices used in the training and showing of Tennessee Walking Horses include chains, ankle rings, collars, rollers, and bracelets of wood or aluminum beads. When used in conjunction with chemical irritants on the pastern of the horse’s foot, the motion of the action device creates a painful response, resulting in a more exaggerated gait. Foreign substances are being detected on the pastern area during pre-show inspections at an alarmingly high rate, according to U.S. Department of Agriculture statistics. While there is little scientific evidence to indicate that the use of action devices below a certain weight are detrimental to the health and welfare of the horse, banning action devices from use in the training and showing of Tennessee Walking Horses reduces the motivation to apply a chemical irritant to the pastern.

The United States Equestrian Federation (USEF), the national governing body for equestrian sport in the United States, disallows action devices in the show ring for all recognized national breed affiliates. The AVMA and the AAEP commend the USEF for this rule and urge the USDA-APHIS to adopt similar restrictions for Tennessee Walking Horses.
Performance packages (also called stacks or pads), made of plastic, leather, wood, rubber and combinations of these materials, are attached below the sole of the horse’s natural hoof and have a metal band that runs around the hoof wall to maintain them in place. Performance packages add weight to the horse’s foot, causing it to strike with more force and at an abnormal angle to the ground. They also facilitate the concealment of items that apply pressure to the sole of the horse’s hoof. Pressure from these hidden items produces pain in the hoof so that the horse lifts its feet faster and higher in an exaggerated gait.

Because the inhumane practice of soring Tennessee Walking Horses has continued 40 years after passage of the Horse Protection Act, and because the industry has been unable to make substantial progress in eliminating this abusive practice, the AVMA and the AAEP believe a ban on action devices and performance packages is necessary to protect the health and welfare of the horse.

Use of Horses in Urban Environments
(Approved May 2003, Reaffirmed endorsement November 2009, November 2012, Reaffirmed endorsement of revised AAEP policy April 2017)

The AVMA endorses the American Association of Equine Practitioners’ policy on the use of horses in urban environments, which reads as follows:

“The AAEP supports the humane and ethical use of horses in urban environments, such as mounted patrols, tourist carriages and taxi/limousine services, in accordance with federal, state and local animal protection laws. Horses engaged in these activities require that special working and living conditions and precautions be taken for their safety and well-being. Urban environments present potential health and welfare hazards that may preclude their use, such as extremes of pollution, concussion, climate and load.

Provisions concerning work hours, workloads and living conditions, standards of driver training and passenger safety should be prepared for each jurisdiction and reviewed by an equine veterinarian. To ensure the health and welfare of horses in urban environments, they should be examined at least annually by competent equine veterinarians for body condition, freedom from lameness and disease, and appropriateness of living conditions and transport, with all findings recorded. Appropriate licensing standards should be established and adhered to by local authorities.
The equine veterinarian is the most qualified individual to manage the health care needs of the horse. The owners and caregivers of horses working in urban settings should have a professional relationship with a veterinary practice with equine expertise that can respond appropriately to all emergencies, including those in which humane euthanasia is required. In the absence of a veterinarian in such a situation, the AAEP acknowledges that it may be necessary for licensed, qualified animal control or trained law enforcement personnel to perform euthanasia using the established guidelines of the American Veterinary Medical Association.”

**Management of Mares Used in the Pregnant Mare Urine (PMU) Collection Industry**
(Approved June 2001; Reaffirmed endorsement November 2007; June 2012, November 2016)

The AVMA endorses the American Association of Equine Practitioners’ position statement on management of mares used in the pregnant mare urine (PMU) collection industry, which reads as follows:

“Through on-site investigations and peer review of ongoing research, the American Association of Equine Practitioners believes the collection of urine from pregnant mares and care of their offspring as prescribed by the recommended Code of Practice* represents responsible management of horses to produce a commodity for the benefit of mankind that should not result in abuse, neglect, or inhumane treatment of horses.”

*The AVMA reviewed the 2007 edition of the Recommended Code of Practice for the Care and Handling of Horses in PMU Operations as developed by the PMU Study Committee and published by Manitoba Agriculture and Ayerst Organics (available at: www.naeric.org/inc/pdf/codeofpractice.pdf)

**Therapeutic Medications in Racehorses**
(Approved endorsement November 2010)

The AVMA endorses the American Association of Equine Practitioners' policy on therapeutic medications in racehorses, which reads as follows:

“The AAEP policy on medication in pari-mutuel racing is driven by our mission to improve the health and welfare of the horse. The AAEP policy is aimed at providing the best health care possible for the racehorses competing while ensuring the integrity of the sport. The AAEP expects its members to abide by the rules of all jurisdictions where they practice. The AAEP condemns the administration of non-therapeutic or unprescribed medications
to racehorses by anyone. The AAEP believes that all therapeutic medication should be administered to racehorses by or under the direction of a licensed veterinarian.

Health care decisions on individual horses should involve the veterinarian, the trainer and owner with the best interests of the horse as the primary objective. The AAEP strongly encourages continued research in determining the therapeutic levels and appropriate withdrawal times that represent responsible use of medication in the racehorse. The AAEP is aware of the dynamics of the development of new products, as well as the continuing evaluation of current medications, and will continue to evaluate its policy based upon available scientific research and the best interests of the horse.

In order to provide the best health care possible for the racehorse, veterinarians should utilize the most modern diagnostic and therapeutic modalities available in accordance with medication guidelines designed to ensure the integrity of the sport. To this end, the following are the essential elements of AAEP policy concerning veterinary care of the racehorse:

• All racing jurisdictions should adopt the uniform medication guidelines set forth by the Racing and Medication Testing Consortium Inc. (RMTC). Including the RMTC testing procedures with strict quality controls and penalty schedules, these guidelines and procedures strive to protect the integrity of racing as well as the health and well-being of the horse.
• Race day medication must be in accordance with current RMTC guidelines. In the absence of a more effective treatment/preventative for exercise-induced pulmonary hemorrhage (EIPH), the AAEP supports the use of furosemide as a day-of-the-race medication to control EIPH. The AAEP advocates the research and development of new treatments to help prevent and/or control EIPH.
• The AAEP encourages proactive and constructive communication between regulatory bodies and practicing veterinarians and other industry stakeholders.
• The AAEP believes that all veterinarians should use judicious, prudent and ethical decisions in all treatments to ensure the health and welfare of the horse.
• The AAEP strongly endorses increased surveillance and enforcement of the above-mentioned regulations.”

For more information regarding RMTC guidelines, please visit [www.rmtcnet.com](http://www.rmtcnet.com).
Therapeutic Medications in Non-racing Performance Horses

The AVMA endorses the American Association of Equine Practitioners’ policy on therapeutic medications in non-racing performance horses, which reads as follows:

“The AAEP policy on medication in non-racing performance horses is driven by our mission to improve the health and welfare of the horse. It is aimed at providing the best health care possible for horses competing under the current rules in various disciplines while ensuring the integrity of the sport.

The AAEP expects its members to abide by the rules of all jurisdictions where they practice.

The AAEP condemns the administration of non-therapeutic or unprescribed medications to performance horses by anyone. The AAEP believes that all therapeutic medication should be administered to performance horses by or under the direction of a licensed veterinarian.

Health care decisions on individual horses involve the veterinarian, the trainer and the owner with the best interests of the horse as the primary objective.

The AAEP strongly encourages continued research in determining the therapeutic levels and appropriate withdrawal times that represent responsible use of medication in the competing horse.

The AAEP is aware of the dynamics of the development of new products, as well as the continuing evaluation of current medications, and will continue to evaluate its policy based upon available scientific research and the best interests of the horse. In order to provide the best health care possible for the performance horse, veterinarians should utilize the most appropriate diagnostic and therapeutic modalities in accordance with medication guidelines of the sport. To this end, the following are the essential elements of the AAEP policy concerning veterinary care of the performance horse:

- It is recognized that various performance horse disciplines have differing regulations concerning medication guidelines. The AAEP urges members to abide by these regulations and to work with the governing bodies to develop and enforce such regulations. The establishment of guidelines backed by testing procedures with strict quality controls should be the goal to protect the well being of the horse and the integrity of the sport.
The AAEP encourages proactive and constructive communication between regulatory bodies, practicing veterinarians and other industry stakeholders. The AAEP offers its expertise to all performance horse organizations for assistance in establishing medication guidelines for their respective disciplines.

The use of medications for the purpose of stimulating, depressing or numbing a horse at the time of competition should be forbidden. It is recognized that some governing bodies allow for the emergency use of local anesthetics for strictly medical purposes within the normal withdrawal time for such agents. Such procedures must be very closely controlled.

Products present in a horse at the time of performance that have been proven to interfere with accurate and effective post-performance testing should be strictly forbidden.

The AAEP endorses the use of quality-controlled testing procedures by all performance horse organizations. Detection of pharmacologically insignificant levels of therapeutic medications should not constitute a violation of medication rules.

Governing organizations have developed guidelines for the use of nonsteroidal anti-inflammatory agents in their sports. It is the opinion of the AAEP that the use of multiple NSAID agents is not in the best interest of the health and welfare of the horse. Performance horse governing bodies are encouraged to regularly reevaluate their regulations in light of this recommendation.

The AAEP believes that all veterinarians should follow a judicious, prudent, and ethical decision-making process.

The AAEP endorses increased surveillance and enforcement of the above-mentioned regulations.”
WILDLIFE AND EXOTIC ANIMALS

Elephant Guides and Tethers
(Approved April 2008)

Elephant guides are husbandry tools that consist of a shaft capped by one straight and one curved end. The ends are blunt and tapered, and are used to touch parts of the elephant's body as a cue to elicit specific actions or behaviors, with the handler exerting very little pressure. The ends should contact, but should not tear or penetrate the skin. The AVMA condemns the use of guides to puncture, lacerate, strike or inflict harm upon an elephant.

Tethers provide a means to temporarily limit an elephant's movement for elephant or human safety and well-being. Tethers can be constructed of rope, chain, or nylon webbing, and their use and fit should not result in discomfort or skin injury. Forelimb tethers should be loose on the foot below the ankle joint, and hind limb tethers should fit snugly on the limb between the ankle and knee joints. Tether length should be sufficient to allow the elephant to easily lie down and rise. The AVMA only supports the use of tethers for the shortest time required for specific management purposes.

For further information on welfare implications of elephant training please visit AVMA’s website at:
http://www.avma.org/KB/Resources/Backgrounders/Pages/Elephant-Training-Backgrounder.aspx

Trapping and Steel-jawed Leghold Traps
(Approved April 2008; Reaffirmed November 2012)

The AVMA opposes the use of conventional, unmodified steel jawed leghold traps. Legitimate science and management practices that necessitate the capture of wildlife should employ the most humane traps and techniques. Such traps and techniques should reduce injury and stress, minimize pain and suffering to wildlife, and prevent capture of nontarget animals.

For further information on welfare implications of leghold trap use in conservation and research please visit AVMA’s website at:
Removal of Antlers (Velvetting)
(Approved November 1994; Revised April 1999, November 2008, November 2014)

If amputation of living, growing antlers of cervids (e.g., deer, moose, elk, caribou) is performed, it must be conducted humanely, and within the bounds of a veterinarian-client-patient relationship. The procedure must minimize stress and pain to the animal with the use of humane handling and analgesia, while protecting the animal against excessive blood loss, infection, and fly strike. Analgesia must address perioperative pain, including the use of anesthesia and systemic analgesia, and must be administered within the guidelines of the Animal Medicinal Drug Use Clarification Act (AMDUCA).

Declawing Captive Exotic and Wild Indigenous Cats
(Approved November 2003, Reaffirmed November 2008; Revised November 2012, Reaffirmed April 2017)

The AVMA condemns declawing captive exotic and other wild indigenous cats for nonmedical reasons.
FOOD ANIMALS

Transport, Sale Yard Practices, and Humane Slaughter of Livestock
(Approved October 1984; Revised April 2001, November 2008)

- Care must be observed when loading and unloading livestock to avoid injury and stress. Physical abuse of animals must not be tolerated under any circumstances. Designing and constructing chutes that accommodate behavioral characteristics of respective animal species will facilitate loading and unloading.
- Sick and injured animals should be separated and handled appropriately.
- Sorting, grouping, and penning in sale yards should be performed so that minimal stress is induced.
- Pens, alleys, and weighing scales should be constructed to permit safe and proper handling.
- Adequate protection should be provided from adverse environmental conditions.
- Consideration should be given to providing food, water, rest, and protection during all types of transportation.
- Safe and adequate vehicles should be used for transporting animals. Time limits during transit, as specified by state and federal regulations, must be observed.
- Policies, procedures, and surveillance should be enforced to reduce occurrence and transmission of infectious diseases.
- The AVMA supports governmental regulations pertaining to humane slaughter of food animals, and supports research on improved practices for humane slaughter.

Disabled Livestock

Disabled livestock must be handled humanely in all situations:

Ambulatory Animals
If an otherwise healthy animal has been recently injured, and the animal is ambulatory, it should be treated, shipped directly to a state or federally
inspected slaughter plant, humanely slaughtered on the farm (where state laws permit), or euthanized. Injured, ambulatory animals should not be commingled with other animals during transport.

Care should be taken during loading, unloading, and handling of these animals to prevent further injury or stress.

**Nonambulatory Animals**

Nonambulatory animals may be moved using a sled, mat, cart or mechanized equipment that supports the full length and weight of the animal. A nonambulatory animal should not be dragged or lifted by the limbs, tail, neck or ears. However, extreme situations in which time is of the essence to save the life of an animal or to prevent human injury, may require handling techniques that cause temporary discomfort to the animal. Slings or hip lifts maybe used to lift or position an animal onto a mat or sled, but should not be used to move the animal. We recommend that each animal operation works with their veterinarian to have a written protocol in place for the movement and care of injured and non-ambulatory animals. Employees must be trained in these protocols with retraining on an incremental basis.

*If an animal is down on a farm*
- If the animal is not in extreme distress and continues to eat and drink, the producer should contact their veterinarian for consultation and/or treatment and provide food, water, and appropriate shelter and nursing care to keep the animal comfortable and prevent further injury.
- If the animal is in extreme distress and the condition is obviously irreversible, the animal should be euthanized immediately or humanely slaughtered on the farm (where state laws permit).

*If an animal is down at a nonterminal market (e.g., sale yard or auction)*
- If the animal is not in extreme distress, but is disabled, treatment measures should be initiated.
- If the animal is in extreme distress or the condition is obviously irreversible, the animal should be euthanized immediately.

*If an animal is down at a terminal market (e.g., slaughterhouse or packing plant)*

Animals that are down should be euthanized immediately and not taken to slaughter. However, if swine are down, and are not in extreme distress or do not have an obviously irreversible condition, they may be allowed up to 2 hours to recover. Acceptable interventions to assist in this recovery include rest, cooling, or other treatments that do not create violative drug residue concerns.
CATTLE
Castration and Dehorning of Cattle
(Approved April 2008; Revised November 2012, Reaffirmed April 2017)

The AVMA recognizes that castration and dehorning of cattle are important for human and animal safety when cattle are used for agricultural purposes. Because castration and dehorning cause pain and discomfort, the AVMA recommends the use of procedures and practices that reduce or eliminate these effects. These include genetic selection when appropriate and use of approved or AMDUCA-permissible clinically effective medications whenever possible. Studies indicate that preoperative use of non-steroidal anti-inflammatory agents and local anesthetics reduces pain and distress associated with castration and dehorning.

- Both dehorning and castration should be done at the earliest age practicable.
- Disbudding is the preferred method of dehorning calves. Local anesthetic and nonsteroidal anti-inflammatory drugs (NSAIDs) should be considered for other dehorning procedures.
- Elastrator rubber banding techniques have been associated with increased chronic pain and should be discouraged. High tension-banding systems may be used with appropriate veterinary supervision and/or training in those situations where surgical castration may predispose to postsurgical complications.
- There are a number of acceptable castration techniques utilized by the cattle industry. The castration method used should take into account the animal’s age, weight, skill level of the operator/technician, environmental conditions, and facilities available, as well as human and animal safety.

Research leading to new or improved techniques that reduce or eliminate pain and distress associated with castration and dehorning, or development of viable alternates to castration and dehorning, is encouraged.

For additional information on castrating cattle, please visit: [http://www.avma.org/KB/Resources/Backgrounders/Pages/castration-cattle-bgnd.aspx](http://www.avma.org/KB/Resources/Backgrounders/Pages/castration-cattle-bgnd.aspx)

and on dehorning and disbudding cattle, please visit: [http://www.avma.org/KB/Resources/Backgrounders/Pages/Welfare-Implications-of-Dehorning-and-Disbudding-Cattle.aspx](http://www.avma.org/KB/Resources/Backgrounders/Pages/Welfare-Implications-of-Dehorning-and-Disbudding-Cattle.aspx)
**Tail Docking of Cattle**  
(Approved April 2004, Reaffirmed April 2009, November 2013)

The AVMA opposes routine tail docking of cattle. Current scientific literature indicates that routine tail docking provides no benefit to the animal, and that tail docking can lead to distress during fly seasons. When medically necessary, amputation of tails must be performed by a licensed veterinarian.

For additional information on tail docking of cattle please visit:  

**Ovariectomy in Cattle**  
(Approved June 1994; Reviewed March 2004, Revised April 2010, November 2014)

Ovariectomy or "spaying" in cattle is a surgical procedure performed to avoid disease transmission and unwanted pregnancy of animals in areas where females cannot be segregated from males and where extensive grazing conditions prohibit control of estrus through feed additives. When ovariectomy is deemed necessary, the procedure should be performed using appropriate restraint and aseptic technique. Just as for other veterinary medical and surgical procedures, veterinarians should use their medical judgment in deciding the best surgical approach. Research leading to new or improved techniques that reduce or eliminate pain and discomfort associated with ovariectomy and development of viable alternatives to ovariectomy are encouraged. This includes the use of approved or AMDUCA-permissible clinically effective anesthesia and analgesic medications whenever possible.

For additional information on ovariectomy in cattle please visit:  

**Veal Calf Management**  
(Approved January 2009; revised 11/2013)

Individual housing during the neonatal period facilitates sanitation, disease control and individual attention for observation and treatment of calves. Individual housing must allow the calf to turn around comfortably and to assume normal postures. AVMA supports current industry initiatives to move to group housing of veal calves. Calves should be housed in groups at the earliest age practicable to facilitate normal behaviors, including social interaction. Like individual housing, group housing must allow all calves to turn around comfortably and to assume normal postures. Housing must be
ventilated to provide fresh air and to prevent buildup of ammonia or pathogens. Floors and bedding must be clean, dry and maintained to prevent injuries, and allow calves to maintain normal body temperature in cold weather.

Feeding practices that enhance health and well-being should be encouraged. All calves must be fed colostrum after birth. Calves must be fed diets that provide adequate energy, protein and minerals to maintain good health and positive growth. Diets must be balanced to prevent nutritional deficiencies and their consequences, including but not limited to iron deficiency with subsequent anemia. Water must be provided from birth. Dry feed should be considered to optimize gastrointestinal development and health.

For additional information on veal calf husbandry, please visit: http://www.avma.org/KB/Resources/Backgrounders/Documents/veal_calf_husbandry_bgnd.pdf

**SHEEP**

**Docking of Lambs’ Tails**


Lambs’ tails may be docked for cleanliness and to minimize fly strike, but cosmetic, excessively short tail docking can lead to an increased incidence of rectal prolapse and is unacceptable for the welfare of the lamb. We recommend that lambs' tails be docked at the level of the distal end of the caudal tail fold and at the earliest age practicable. Because tail docking causes pain and discomfort, the AVMA recommends the use of procedures and practices that reduce or eliminate these effects, including the use of approved or AMDUCA-permissible clinically effective medications whenever possible.

For additional information on docking of lambs’ tails, please visit: http://www.avma.org/KB/Resources/Backgrounders/Documents/lamb_tail_docking_bgnd.pdf
Pregnant sows are kept in a variety of housing systems. Sow housing and management systems should:
• Provide every animal access to appropriate food and water;
• Promote good air quality and allow proper sanitation;
• Protect sows from environmental extremes;
• Reduce exposure to hazards or conditions that result in injuries, pain, distress, fear or disease;
• Facilitate the observation of individual sows to assess their welfare;
• Provide sows with adequate quality and quantity of space that allows sows to assume normal postures and express normal patterns of behavior.

There are advantages and disadvantages to any sow housing system and the benefits and harms to the animals of each should be considered by weighing scientific evidence and veterinary professional judgment. For example, while gestation stall systems minimize aggression and injury, reduce competition, and allow individual feeding and nutritional management, they restrict normal behavioral expression. Group housing systems are less restrictive, but could lead to increased lameness and undesirable social behaviors, such as aggression and competition for resources (e.g., feed, water, space to lie down).

The AVMA encourages ongoing research to better understand and meet the welfare needs of gestating sows. Appropriate and ongoing training for people handling and working with pregnant sows is critical to ensure that they are able to provide and promote good welfare within the management system being used.

For additional information on housing pregnant sows, please visit;  

For additional information on gestation sow housing, please visit;  
Swine Castration
(Approved October 1984; Revised November 2003, April 2010)

Castration of swine can help control aggressive behavior and improve the palatability of pork. Current U.S. swine markets do not allow for mass marketing of uncastrated male pigs. Castration is a painful surgical procedure and should be performed as early as possible, preferably by 14 days of age. Surgical wounds should be healed prior to weaning. After 14 days of age, swine should be castrated using analgesia and/or anesthesia. The AVMA recommends the use of procedures and practices that reduce or eliminate pain, including the use of approved or AMDUCA-permissible clinically effective medications whenever possible. The AVMA encourages development and implementation of practical analgesic and anesthetic protocols for, and alternatives to, swine castration.

For additional information on swine castration, please visit: https://www.avma.org/KB/Resources/Backgrounders/Documents/swine_castration_bgn.pdf

For additional information on practices performed on piglets, please visit: http://www.avma.org/KB/Resources/Backgrounders/Pages/Welfare-implications-of-practices-performed-on-piglets.aspx

Tail Docking and Teeth Clipping of Swine
(Approved April 2010, Revised 06/2011, November 2015)

The AVMA recommends the use of procedures and practices that reduce or eliminate pain associated with tail docking and teeth clipping. This may include the use of approved or AMDUCA-permissible clinically effective medications.

Tail docking is performed to reduce tail biting and cannibalism among pigs. Tail docking should be performed early and sufficiently prior to weaning such that no open wounds remain at the time of weaning. Clean, sharp equipment must be used to minimize pain and risk of infection.

Teeth clipping is a management tool performed only when necessary to prevent trauma to littermates' faces and the sow's underline by piglets' canine teeth when competing for a teat. Alternative management practices, including those that reduce the need for piglet movement between litters, should be used when possible to reduce the need for teeth clipping. When necessary, teeth clipping should be performed early and prior to weaning. Clean, sharp equipment must be used to minimize pain and risk of infection.
POULTRY
Layer Hens Housing Systems
(Approved October 1984; Revised November 2001, April 2010; Reaffirmed November 2014)

Laying hen housing systems must provide feed, water, light, air quality, space and sanitation that promote good health and welfare for the hens. Housing systems should provide for expression of important natural behaviors, protect the hens from disease, injury and predation, and promote food safety. Participation in a nationally recognized, third-party audited welfare program is strongly advised.

For additional information on layer hens housing system, please visit: http://www.avma.org/KB/Resources/Backgrounders/Documents/laying_hen_housing_bgnd.pdf

Beak Trimming

Beak trimming of poultry should be practiced only when necessary to prevent feather pecking and cannibalism. Only trained and monitored personnel should perform beak trimming, using proper equipment and procedures that minimize pain, prevent excessive bleeding, promote rapid healing and prevent infection. The AVMA encourages the development of alternative practices, including genetic selection, or management of light or nutrition, which may reduce or eliminate the practice of beak trimming.

For additional information on beak trimming, please visit: http://www.avma.org/KB/Resources/Backgrounders/Pages/beak-trimming-bgnd.aspx

Induced Molting of Layer Chickens
(Approved July 2002; Revised July 2004, November 2009, Reaffirmed November 2013)

Induced molting of commercial layer chickens must be a carefully monitored and controlled procedure, with special attention paid to flock health, mortality, and bird weight. Neither water nor food should be withdrawn to induce molting. Acceptable practices include reduction of photoperiod (day length) and specific nutrient restrictions that result in cessation of egg production. Induced molting extends the productive life of commercial chicken flocks and results in a substantial reduction in the number of chickens needed to produce the nation’s egg supply.

For additional information on induced molting of layer chickens, please visit: http://www.avma.org/KB/Resources/Backgrounders/Documents/induced_molting_layer_chickens_bgnd.pdf
Use of Water-Based Foam for Depopulation of Poultry
(Approved November 2006)

The AVMA supports the use of water-based foam as a method of mass depopulation for poultry in accord with the conditions and performance standards outlined by the US Department of Agriculture’s Animal and Plant Health Inspection Service (USDA APHIS). The following summarizes the conditions under which USDA APHIS has approved the use of water-based foam for depopulation of poultry:

1. Use of water-based foam is considered an appropriate method of depopulation of floor-reared poultry (i.e., broiler chickens and turkeys) in accord with USDA APHIS performance standards (“USDA APHIS Performance Standards for the Use of Water-Based Foam as a Method of Mass Depopulation of Domestic Poultry” [Appendix]); and
2. Animals are infected with a potentially zoonotic disease; or
3. Animals are experiencing an outbreak of a rapidly spreading infectious disease that, in the opinion of state or federal regulatory officials, cannot be contained by conventional or currently accepted means of depopulation; or
4. Animals are housed in structurally unsound buildings that would be hazardous for human entry, such as those that may result from a natural disaster.

Mass depopulation refers to methods by which large numbers of animals must be destroyed quickly and efficiently with as much consideration given to the welfare of the animals as practicable, but where the circumstances and tasks facing those doing the depopulation are understood to be extenuating. Euthanasia involves transitioning an animal to death in a manner that is as painless and stress-free as possible. The AVMA currently considers that destruction of poultry using water-based foam is a method of mass depopulation and not a form of euthanasia. The AVMA supports additional research to evaluate whether water-based foam can be accepted as a form of euthanasia.
APPENDIX
USDA APHIS Performance Standards for the Use of Water-based Foam as a Method of Mass Depopulation of Domestic Poultry

(These dynamic Performance Standards are currently based on objective and subjective measurement. They are intended to be guidelines used to evaluate any type of water-based foam and foam delivery system used for depopulation of poultry until such time that sufficient biometric, engineering, and welfare data can be gathered to establish thorough performance standards.)

1. In order to comply with current animal welfare considerations and optimal operating procedures, USDA APHIS has developed these minimum standards which all water-based foam systems used for mass depopulation of poultry must meet or exceed by performance measurement until further notice. The field application of water-based foam used for depopulation as stipulated by these standards is currently approved for use with floor-reared poultry and as conditionally stipulated in Standard 11. Floor-reared poultry is defined as poultry not housed in cages (e.g., broiler chickens and turkeys), but may not necessarily include all types of poultry (e.g., waterfowl, see Standard 11). Approved experimental protocols to adapt this method for use in caged poultry (e.g., laying hens) and broaden its application to other poultry types are not restricted by the official position of USDA APHIS on the use of water-based foam for depopulation of poultry nor these standards. Note that these standards will be revised as further information becomes available.

2. Water-based foams used for depopulation must be:
   a. Readily available;
   b. Environmentally safe;
   c. Biodegradable;
   d. Compatible with carcass disposal methods;
   e. As non-irritating as possible to poultry mucosa; and
   f. Of no significant risk to human health.
3. Foam delivery systems must produce foam that is of the appropriate consistency and density to completely occlude the upper airway of domestic poultry; so that when immersed in the foam, airway occlusion occurs in a rapid and overwhelming manner such that birds do not unduly struggle. At this time, the desired bubble size from water-based foam used for poultry depopulation should not exceed 0.625 inches (1.58 cm) and preferably should be smaller. Note: Bubble diameters exceeding 0.33 inches (0.84 cm) may not be appropriate for the depopulation of all types of poultry or may not provide 100% depopulation of the target birds. It is intended that systems developed pursuant to this Standard will provide broad species depopulation capability, but may be limited by the developer to specific species or applications. If the foam used to depopulate does not meet the requirements as stipulated in Standard 9, then its use must be limited to those types of poultry where it has been shown to meet the criteria in Standard 9.

4. The water-based foam must be fluid enough:
   a. To engulf or negotiate any building supports or structures,
   b. To surround the birds without cavitations that may be generated by bird movement, and
   c. Be of a consistency (fluidity) that is readily inspired by the birds.

Fluidity in foam is equated to the expansion ratio and the moisture content; to be suitable for depopulation of poultry, the expansion ratio required ranges from 25:1 to 140:1. Note that foams exhibiting expansion ratios exceeding 120:1 may not be appropriate for depopulating all types of floor-reared poultry. Importantly, foam exhibiting expansion ratios below approximately 35:1 may not accumulate to sufficient depth to cover the target species. If the foam used to depopulate does not meet the requirements as stipulated in Standard 9, then its use must be limited to those types of poultry where it has been shown to meet the criteria stipulated in Standard 9.

5. The water-based foam must have sufficient body to be able to accumulate to at least 6 inches (15 cm) over the mean height of the types of poultry being depopulated. In cases such as full grown turkeys depths up to at least 54 inches (137 cm) may be required.

6. The application of the water-based foam must be performed in a manner that disturbs the birds as little as possible and avoids panic, “piling” or overcrowding.
7. Water-based foam of the proper consistency as outlined in sections 2-4 must be capable of being generated using a wide variety of water qualities across a broad range of dissolved solids, salinities, pH, and hardness factors. It is important to note that at present, the primary limiting factor of the speed at which the depopulation event can be conducted, is the availability of an adequate water supply at the site of depopulation.

8. Water-based foam must demonstrate a residency time (persistence) of no less than 30 minutes (regardless of climatic conditions or solar exposure) to ensure that all birds have been properly dispatched.

9. In terms of the time to death and total percentage of the population killed when water-based foam is used on any type or age of poultry, the foam system employed must result in the death of 95% of the birds within 7 minutes or less after the birds have been completely submerged in the foam. If 100% of the birds have not been depopulated after 15 minutes post-submergence, then contingencies must exist to dispatch the birds as humanely and quickly as possible in accordance to currently accepted euthanasia methods.

10. Water-based foam delivery systems must perform reliably and reproducibly in accordance with the criteria detailed in performance Standards 2-9 under a wide range of climatic and operating conditions. Climatic conditions may include ambient indoor temperatures ranging from 0º C (32º F) to 44º C (110º F) and relative humidity ranging from 10% to 100%. Poultry housing situations vary widely including large surface areas and multistory housing. Strategies must be developed to address these variances before attempting to depopulate with foam.

11. There are many species of fowl, including waterfowl (e.g., ducks and geese) and other gallinaceous birds (e.g., guineas and quail) used for food, eggs, or other purposes where current data on the use of water-based foam for depopulation are lacking. However, water-based foam may be conditionally used in depopulating these particular types of fowl if:

   a. The foam and delivery system meets the criteria detailed in Standards 2-10 and,

   b. The system demonstrates killing times, killing rates, behavioral responses, and physiological responses comparable to those which would normally be observed when water-based foam is used to depopulate common farm- reared poultry where foaming has been shown to be effective (i.e., broiler chickens and turkeys).
However during the foaming of species where reaction to foam is unknown, if adverse reactions are observed that are more extreme than those seen with farm-reared poultry (i.e., broiler chickens or turkeys), or prolonged killing times or killing rates not consistent with Standard 9 are encountered, then foam should not be used to depopulate that particular species of fowl. If a question of suitability on the use of foam in a particular species arises, then the determination of whether foam may be applied to a particular species will be made by the USDA Incident Commander and the ranking USDA Animal Welfare officer detailed to the outbreak, or the State Veterinarian.

12. Components of water-based foam delivery systems must be able to withstand chemical disinfection, and all parts of the water-based foam delivery system that enter contaminated houses must be able to withstand stringent cleaning and decontamination measures. In some cases the water-based foam may also be used for decontamination purposes.

13. Water-based foam delivery systems should either be adaptable for multiple types of poultry housing or be marketed for use that is limited to specific types of poultry and/or housing.

14. Water-based foam delivery systems should be portable and constructed of components that are easily serviceable and/or replaceable. Portable by this standard is intended to mean easily transportable from one site to another by any conventional means.