# Least Intrusive, Minimally Aversive (LIMA) Effective Behavior Intervention Policy

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**What Is LIMA?**
LIMA is an acronym for the phrase “Least Intrusive, Minimally Aversive”. LIMA describes a trainer or behavior consultant who uses the least intrusive, minimally aversive strategy out of a set of humane and effective tactics likely to succeed in achieving a training or behavior change objective. LIMA adherence also requires consultants to be adequately educated and skilled in order to ensure that the least intrusive and aversive procedure is used. [1]

LIMA does not justify the use of punishment in lieu of other effective interventions and strategies. In the vast majority of cases, desired behavior change can be affected by focusing on the animal's environment, physical well-being, and operant and classical interventions such as differential reinforcement of an alternative behavior, desensitization, and counter-conditioning.

**LIMA Is Competence-Based**
LIMA requires trainers/consultants to work to increase the use of positive reinforcement and eliminate the use of punishment when working with animal and human clients. In order to ensure best practices, consultants should pursue and maintain competence in animal behavior consulting and training through continuing education, and hands-on experience. Consultants should not advise on problems outside the recognized boundaries of their competencies and experience. [2]

**Positive Reinforcement and Understanding the Learner**
Positive reinforcement should be the first line of teaching, training, and behavior change program considered, and should be applied consistently. Positive reinforcement is associated with the lowest incidence of aggression, attention seeking, avoidance, and fear in learners. [3]

Only the learner determines what may be reinforcing. It is crucial that the consultant understands and has the ability to appropriately apply this principle. This fact may mean that the consultant assesses any handling, petting, food, tool, and environment each time the learner experiences them. Consultant bias must not determine the learner’s experience. The measure of each stimulus is whether the learner’s target behavior is strengthening or weakening, not the consultant’s intent or preference.

**Systematic Problem Solving and Strategies**
The trainer/consultant is responsible for ensuring learner success through a consistent, systematic approach that identifies a specific target behavior, the purpose of that behavior, and the consequences that maintain the behavior.

A variety of learning and behavior change strategies may come into play during a case. Ethical use of this variety always depends on the trainer/consultant's ability to adequately problem solve and to understand the impact of each action on the learner, as well as sensitivity toward the learner's experience.

**Preventing Abuse**
We seek to prevent the abuses and potential repercussions of inappropriate, poorly applied, and inhumane uses of punishment and of overly-restrictive management and confinement strategies. The potential effects of punishment can include aggression or counter-aggression; suppressed behavior (preventing the consultant from adequately reading the animal); increased anxiety and fear; physical harm; a negative association with the owner or handler; increased unwanted behavior; and, new, unwanted behaviors. [4]

**Choice and Control for the Learner**
LIMA guidelines require that trainer/consultants always offer the learner as much control and choice as possible. Trainer/consultants must treat each individual of any species with respect and awareness of the learner's individual nature, preferences, abilities, and needs. [5]

**What Do You Want the Animal TO Do?**
We focus on reinforcing desired behaviors and always ask the question, "What do you want the animal TO do?" Relying on punishment in training does not answer this question, and therefore offers no acceptable behavior for the animal to learn to replace the unwanted behavior. These LIMA guidelines do not justify the use of aversive methods and tools including, but not limited to, the use of electronic, choke or prong collars in lieu of other effective positive reinforcement interventions and strategies.

When making training and behavior modification decisions, trainers/consultants should understand and follow the Humane Hierarchy of Behavior Change – Procedures for Humane and Effective Practices, outlined in the diagram. [6]

For these reasons, we, strongly support the humane and thoughtful application of LIMA protocols, and we applaud those individuals and organizations working with animals and humans within LIMA guidelines.

**Humane Hierarchy**
<u>Purpose</u>
The Humane Hierarchy serves to guide professionals in their decision-making process during training and behavior modification. Additionally, it assists owners and animal care professionals in understanding the standard of care to be applied in determining training practices and methodologies and the order of implementation for applying those training practices and methodologies.

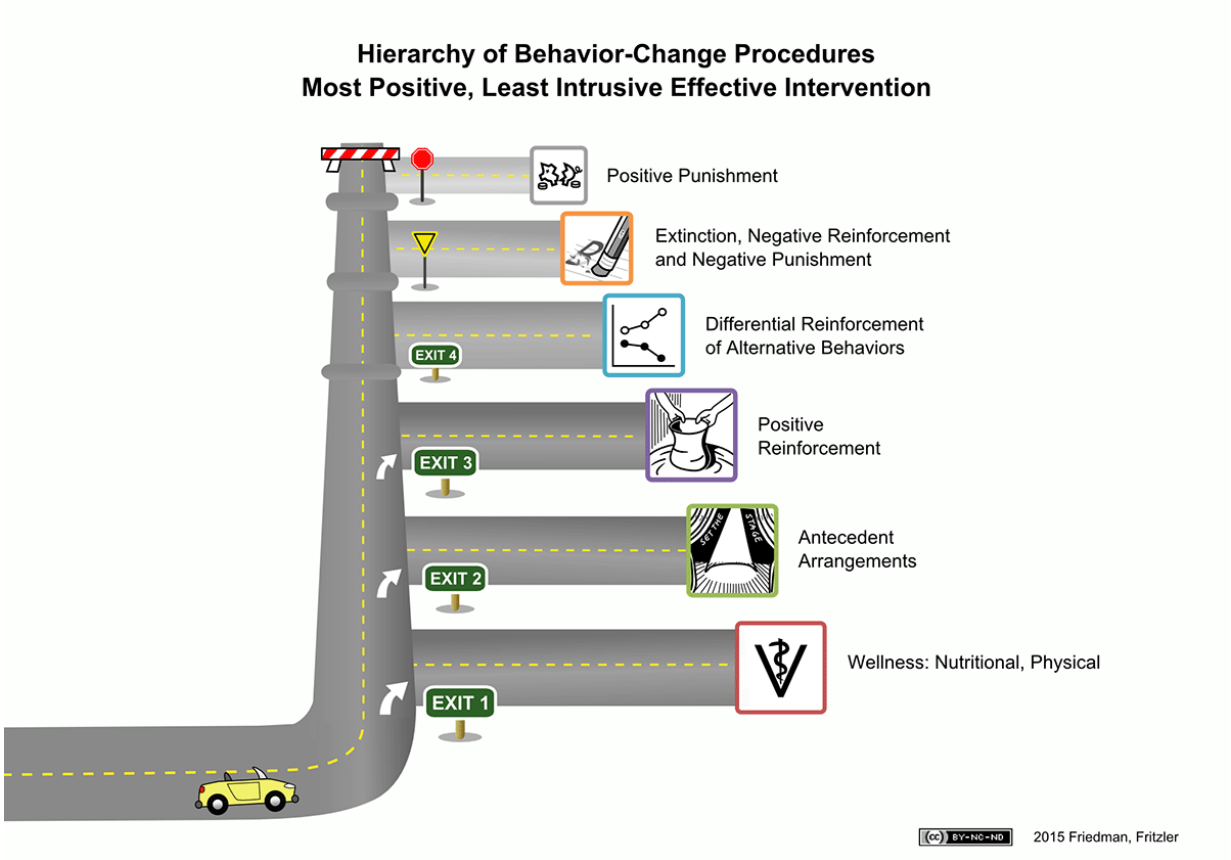
Hierarchy of Procedures for Humane and Effective Practice

1. Health, nutritional, and physical factors: Ensure that any indicators for possible medical, nutritional, or health factors are addressed by a licensed veterinarian. The consultant should also address potential factors in the physical environment.
2. Antecedents: Redesign setting events, change motivations, and add or remove discriminative stimuli (cues) for the problem behavior.
3. Positive Reinforcement: Employ approaches that contingently deliver a consequence to increase the probability that the desired behavior will occur.
4. Differential Reinforcement of Alternative Behavior: Reinforce an acceptable replacement behavior and remove the maintaining reinforcer for the problem behavior.
5. Negative Punishment, Negative Reinforcement, or Extinction (these are not listed in any order of preference):
    a. Negative Punishment– Contingently withdraw a positive reinforcer to reduce the probability that the problem behavior will occur.
    b. Negative Reinforcement– Contingently withdraw an aversive antecedent stimulus to increase the probability that the right behavior will occur.
    c. Extinction – Permanently remove the maintaining reinforcer to suppress the behavior or reduce it to baseline levels.
6. Positive Punishment: Contingently deliver an aversive consequence to reduce the probability that the problem behavior will occur.

**Useful Terms**

Intrusiveness refers to the degree to which a procedure affects the learners control. With a less intrusive procedure, a learner retains more control. The goal of LIMAis for its trainers/consultants to determine and use the least intrusive effective intervention which will effectively address the target behavior. In the course of an experienced consultant's practice, he or she may identify a situation in which a relatively more intrusive procedure is necessary for an effective outcome. In such a case, a procedure that reduces the learner's control may be the least intrusive, effective choice.

Additionally, wellness is always positioned as the first step of the hierarchy to ensure that a trainer/consultant does not implement a learning solution for behavior problems due to pain or illness. The hierarchy is a cautionary tool to reduce both dogmatic rule following and practice by familiarity or convenience. It offers an ethical checkpoint for consultants to carefully consider the process by which effective outcomes can be most humanely achieved on a case-by-case basis. The hierarchy is intended to be approached in order for each case. Rationale like, "It worked with the last case!" is not appropriate. The evaluation and behavior change program of every animal should be a study of the individual (i.e., individual animal, setting, caregiver, etc.). Changing behavior is best understood as astudy of one.




References:

[1] Steven Lindsay, Handbook of Applied Dog Behavior and Training Vol 3 pgs. 29 & 726.

[2] Per the IAABC, APDT, and CCPDT Code of Ethics Principle 3.7

[3] "[The] use of positive reinforcement alone was associated with the lowest mean scores (attention-seeking score 0.33; fear (avoidance) score 0.18; aggression score 0.1). The highest mean attention-seeking score (0.49) was found in dogs whose owners used a combination of positive reinforcement and negative reinforcement. The highest mean avoidance score (0.31) was found in dogs whose owners used a combination of all categories of training method. Owners using a combination of positive reinforcement and positive punishment had dogs with the highest mean aggression score (0.27)." Emily J. Blackwell, Caroline Twells, Anne Seawright, Rachel A. Casey, The relationship between training methods and the occurrence of behavior problems, as reported by owners, in a population of domestic dogs, Journal of Veterinary Behavior: Clinical Applications and Research, Volume 3, Issue 5, September–October 2008, Pages 207-217, ISSN 1558-7878, http://dx.doi.org/10.1016/j.jveb.2007.10.008.

[4] See avsabonline.org • Hutchinson RR. 1977. By-products of aversive control. In: Honig WK, Staddon JER, eds. Handbook of Operant Behavior. Englewood Cliffs, NJ: Prentice-Hall: 415-431.• Azrin NH. 1960. Effects of punishment intensity during variable-interval reinforcement. J Exp Anal Behav 3: 123-142.• Azrin NH, Holz WC, Hake DR. 1963. Fixed-ratio punishment. J Exp Anal Behav 6: 141-148. • Pauli AM, Bentley E, Diehl AK, Miller PE. 2006. Effects of the application of neck pressure by a collar or harness on intraocular pressure in dogs. J Am Anim Hosp Assoc 42(3): 207-211. • Drobatz KJ, Saunders HM, Pugh CR, Hendricks JC. 1995. Noncardiogenic pulmonary edema in dogs and cats: 26 cases (1987-1993). J Am Vet Med Assoc 206: 1732-1736. • Azrin NH, Rubin HB, Hutchinson RR. 1968. Biting attack by rats in response to aversive shock. J Exp Anal Behav 11: 633-639

[5] Brambell's Five Freedoms, used as animal and human welfare guidelines:

[6] S. Friedman, What's Wrong with this Picture? Effectiveness is Not Enough, APDT Journal March/April 2010